




# Engineering Adhesives Product Selection Guide

 H.B. Fuller

 H.B. Fuller | **Vibra-TITE**

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# Engineering Adhesives Technology Overview



**H.B. Fuller**

Connecting what matters.™



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KLEBEN VERBINDET |

**EUROPE**

Belgium | H.B. Fuller Willebroek  
Hoeikensstraat 1 | Willebroek, Belgium 2830

Finland | Lemtapes Oy  
Tikinmaantie 66 | Valkeakoski, Finland, 37630

France | H.B. Fuller Blois  
Allée Robert Schuman, C.S. 1308 | Blois Cedex, 41013 France

France | H.B. Fuller Adhesives France SAS  
56, Rue du Général de Gaulle | Surbourg, 67250 France

Germany | Kömmerling Chemische Fabrik GmbH  
Innerstetal 2 | Langelsheim, Germany 38685

Germany | H.B. Fuller Deutschland GmbH  
An der Roten Bleiche 2-3 | Lüneburg, 21335 Germany

Germany | H.B. Fuller Adhesives Deutschland GmbH  
Mallastrasse 74 | Mannheim, 68219 Germany

Germany | H.B. Fuller Deutschland Produktions GmbH  
Henriettenstrasse 32 | Niedersachsen, Nienburg, 31582 Germany

Germany | Kömmerling Chemische Fabrik GmbH  
Zweibrücker Straße 200 | 66954 Pirmasens, Germany

Germany | H.B. Fuller Cyberbond Europe GmbH  
Werner-von-Siemens-Str. 2 | Wunstorf, Germany

Greece | H.B. Fuller Adhesives Greece S.A.I.C.  
Anthili Lamia, Lamia GR, 35014

Italy | H.B. Fuller Adhesives Italia s.r.l.  
Via dell'Industria, 8 | San Lorenzo VI | Pianezze, Italy

Portugal | H.B. Fuller Isar-Rakoll S.A.  
Estrada Nacional 13, km16 | Mindelo, Portugal

UK | Apollo Solutions  
Sandy Way, Amington Industrial Estate | Tamworth, Staffordshire, B77 4DS

UK | Beardow Adams Adhesives Limited  
32 Blundells Road, Bradville | Milton Keynes, MK13 7HF

UK | HS Butyl  
Gordleton Industrial Park, Hannah Way, Sway Road | Lymington, SO41 8JD

UK | Kommerling UK Ltd  
217 Walton Summit Road | Bamber Bridge | PR5 8AQ, Preston

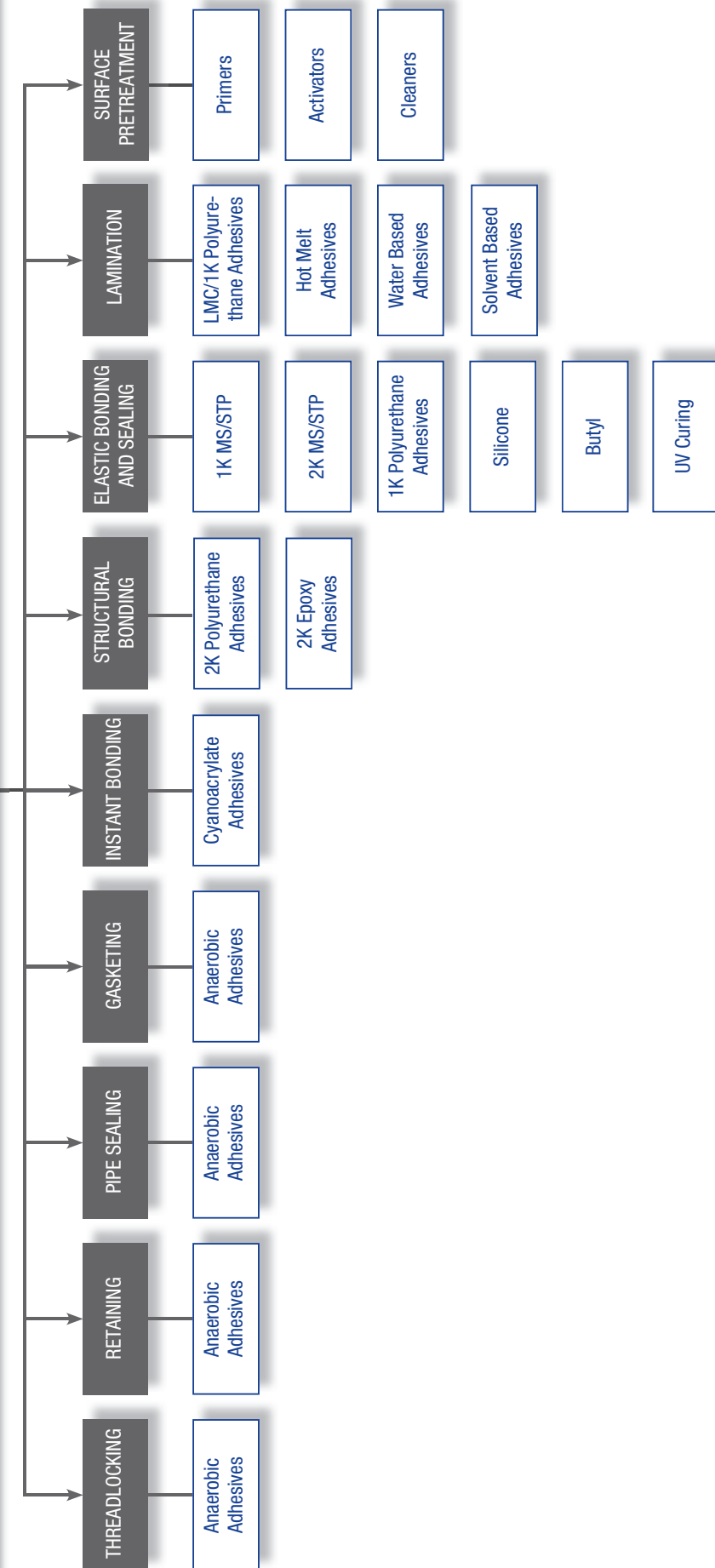
UK | SK16 4XE  
Globe Lane Industrial Estate | Outram Rd. | SK16 4XE, Dukinfield



Important Notice to Purchaser: The technical parameters provided in the manual will vary with different operating conditions (temperature, humidity, material, etc.) ,only for reference, not as a product acceptance criteria.

**Engineering Adhesives - Overview**

**TECHNOLOGY OVERVIEW**





# Home Appliances | Washers and Dryers

## Recommended Solutions

Application	Technology	Key Products	Product Description
Door assembly bonding	1-K STP	Körapop 225	Elastic moisture curing adhesive and sealant with high cold and heat resistance and excellent moisture resistance.
	1-K STP	Körapop 240	Elastic moisture curing adhesive and sealant with high cold and heat resistance and excellent moisture resistance.
Door gasket bonding	Cyanoacrylate	Vibra-TITE 2008	Fast curing adhesive with good ageing resistance, very low viscosity enables very thin adhesive layer.
Top lid bonding	Hotmelt PUR	XP 30397-1	High initial strength, high thermal stability after final curing and very good flexibility.
Control panel bonding	Cyanoacrylate	Vibra-TITE 2006	Fast curing adhesive with good ageing resistance, low viscosity.
NVH Sound deadening	LASD - Liquid Applied Sound Deadener	Ko-Sonic 2140	Innovative sound damping system based on Polyurethane just liquid applied; offers high damping performance with superior properties compared to traditional sound damping technologies.
Motor magnets bonding	2-K Epoxy	Körapox 735	Reaction adhesive for fast bonding and casting of glass, ceramic, stone, metal and electronic parts.
Bolt locking	Anaerobics	Vibra-TITE RH 98	High strength, high viscosity, thixotropic, high temperature resistance.
Motor shell sealing	1-K STP	Körapop 225	Elastic moisture curing adhesive and sealant with high cold and heat resistance and excellent moisture resistance.
	1-K STP	Körapop Alu	Elastic moisture curing adhesive and sealant with high cold and excellent moisture resistance, aluminium colour.
Glass bonding to ABS and metal	Hotmelt PUR	Swift®lock 2441	Curable using ambient humidity, offers a broad spectrum of adhesion, good temperature resistance, fast cohesion built up.
Pipe thread sealing	Anaerobics	Vibra-TITE SH 27	Medium strength, high viscosity, for pipe and flange sealing and instant gasket, can be dismantled.
Counterweight bolt locking	Anaerobics	Vibra-TITE RH 98	High strength, high viscosity, thixotropic, high temperature resistance.

# Threadlocking - Anaerobic Adhesives

APPLICATION

Threadlocking

TECHNOLOGY

Anaerobic Adhesives

REQUIREMENTS

Low strength

Medium strength

High strength

PRODUCT

TM 11

TM 44

TM 66

CHARACTERISTICS

Multi-purpose, medium open time

High mechanical properties

Extremely high mechanical properties, high shore A hardness

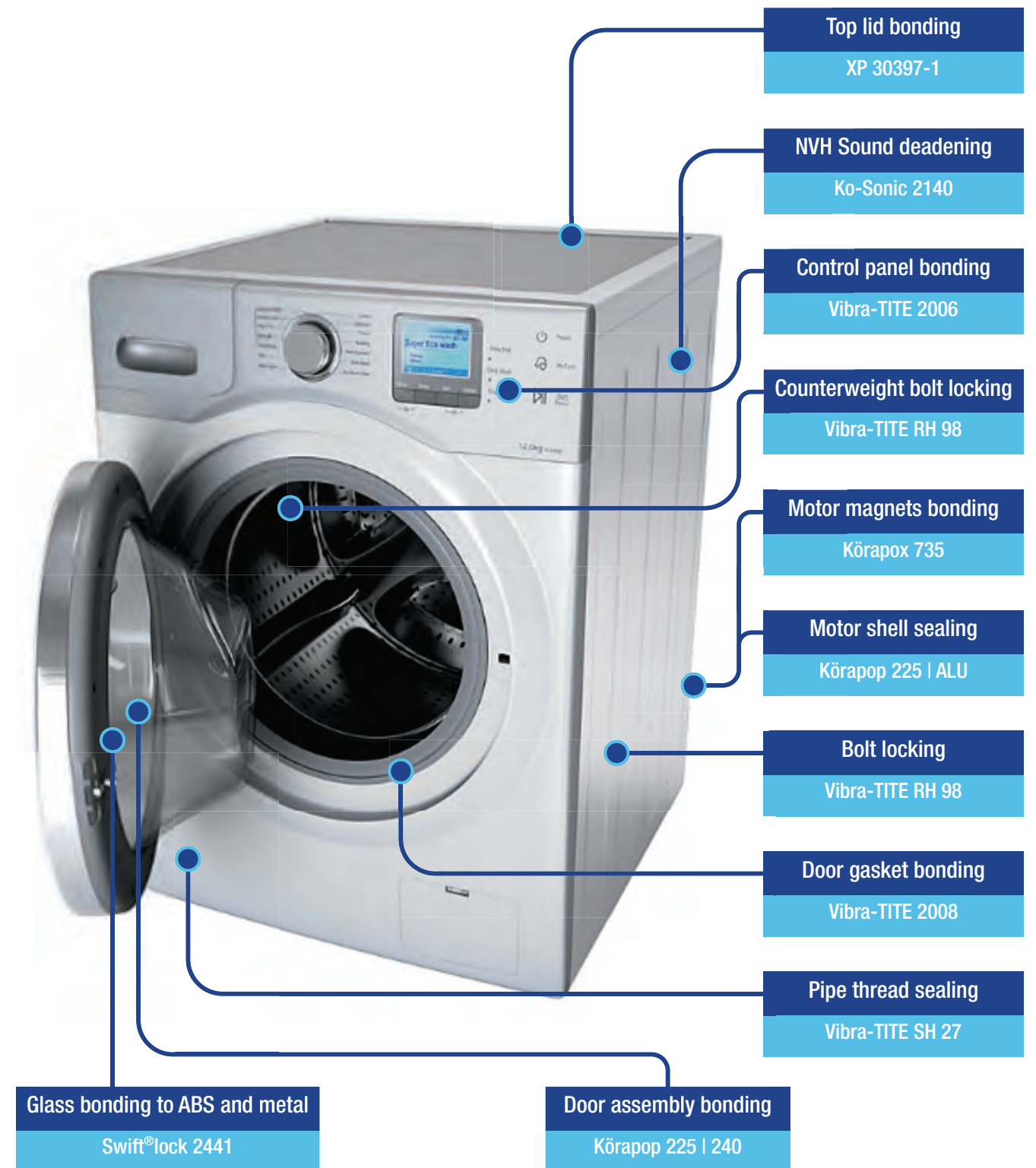


# Anaerobic Adhesives Technical Data

## Product Range

Product	Key Properties	Color	Max. Size of Thread	Service Temperature	Packaging
TM 11	Easy to dismantle thread locker, for precision screws.	Violet	M 12	-50 to +150 °C	10 g bottle 50 g bottle 250 g bottle
TM 44	Medium strength, thixotropic, for threaded joints which can be disassembled with standard hand tools. NSF P1 registered, potable water approval.	Blue	M 20	-50 to +150 °C	10 g bottle 50 g bottle 250 g bottle
TM 66	Solvent free, high strength, medium open time.	Green	M 20	-50 to +150 °C	10 g bottle 50 g bottle 250 g bottle
TH 62	High viscosity, high strength, gap filling properties	Red	M 24	-50 to +150 °C	10 g bottle 50 g bottle 250 g bottle
ETM 44	Medium strength, thixotropic, disassembly with standard hand tools. No GHS labelling.	Blue	M 20	-50 to +150 °C	50 g bottle 250 g bottle
ETM 66	High strength, for permanently locked screws, studs etc. No GHS labelling.	Green	M 20	-50 to +150 °C	50 g bottle 250 g bottle
ETH 62	High strength, high viscosity, thixotropic for permanent locking and sealing. No GHS labelling.	Green	M 36	-50 to +180 °C	50 g bottle 250 g bottle
TT 44	Medium strength, in gel, disassembly with standard hand tools.	Blue	M 50	-50 to +150 °C	35 g pumpgel
TT 62	High strength, high viscosity, in gel, for permanent locking and sealing.	Red	M 50	-50 to +150 °C	35 g pumpgel
TT 69	4 in 1 product: high temperature thread locker, retaining compound, pipe and flange sealant. Thixotropic formulation for all maintenance operations in a pump dispensing bottle; NSF P1 registered; approved for gas and potable water.	Green	R 1	-50 to +150 °C	35 g pumpgel

# Home Appliances | Washers and Dryers



# Home Appliances | Cooktop and Ovens

## Recommended Solutions

### COOKTOPS

Application	Technology	Key Products	Product Description
Glass ceramics panel bonding to ABS	1-K Silicone	Köditec 114	High heat resistance (short term up to +350 °C), high mechanical strength.
	Hotmelt PUR	Swift®lock 4023 F	Low viscosity, short open time.
Cooktop and ceramic hob bonding and sealing	1-K Silicone	Köditec 114	High heat resistance (short term up to +350 °C), high mechanical strength.
	2-K Silicone	Ködiglaze S	High strength and elasticity, excellent mechanical properties, very good adhesion.
Control panel bonding	Hotmelt PUR	Swift®lock 2441	Curable using ambient humidity, offers a broad spectrum of adhesion, good temperature resistance.

### OVENS

Application	Technology	Key Products	Product Description
Control panel bonding	Hotmelt PUR	Swift®lock 2441	Curable using ambient humidity, offers a broad spectrum of adhesion, good temperature resistance.
Tank sealing and bracket bonding	1-K Silicone	Köditec 114	High heat resistance (short term up to +350 °C), high mechanical strength.
Convection blower bonding			
Door glass and stiffener bonding			

# Retaining - Anaerobic Adhesives

APPLICATION

Retaining

TECHNOLOGY

Anaerobic Adhesives

REQUIREMENTS

Low viscosity, for precise joints

Medium viscosity

High viscosity, for large gaps

PRODUCT

RL 67

RM 88

RH 98

CHARACTERISTICS

Low viscosity

High temperature resistance

High temperature resistance; gap filling



# Anaerobic Adhesives Technical Data

## Product Range

Product	Key Properties	Color	Gap Filling	Service Temperature	Packaging
RL 67	For cylindrical parts like bearings, shafts, bushes, rotors, studs etc.; low viscosity.	Green	0,04 to 0,13 mm	-50 to +150 °C	10 g bottle 50 g bottle 250 g bottle
RM 88	High temperature resistance; for cylindrical parts like bearings, bushes, etc.	Green	0,05 to 0,15 mm	-50 to +180 °C	10 g bottle 50 g bottle 250 g bottle
RH 98	High temperature resistance; gap filling; for dynamic loaded parts; can be used also for high resistance threadlocking.	Green	0,10 to 0,30 mm	-50 to +200 °C	10 g bottle 50 g bottle 250 g bottle
RH 99	Retainer with high strength, high viscosity, high temperature resistance; for dynamic loaded parts such as in pumps, gearboxes and electric motors.	Green	0,10 to 0,25 mm	-50 to +180 °C	50 g bottle 250 g bottle
RL 65	Very low viscosity, penetrating, medium strength threadlocker and retainer.	Green	0,10 to 0,25 mm	-50 to +150 °C	50 g bottle 250 g bottle
ERM 88	High strength, medium viscosity, high temperature resistance retainer. No GHS labelling.	Green	0.05 to 0.15 mm	-50 to +180 °C	35 g pumpgel
TT 69	4 in 1 product: high temperature thread locker, retaining compound, pipe and flange sealant. Thixotropic formulation for all maintenance operations in a pump dispensing bottle; NSF P1 registered; approved for gas and potable water.	Green	0.1 to 0.2 mm	-50 to +150 °C	35 g pumpgel
TT 88	High strength, for bonding of cylindrical, fitting parts, high temperature resistance.	Green	0.1 to 0.3 mm	-50 to +150 °C	35 g pumpgel

# Home Appliances | Cooktop and Ovens



# Home Appliances | Dishwashers

## Recommended Solutions

Application	Technology	Key Products	Product Description
Top lid bonding	Hotmelt PUR	XP 30397-1	High initial strength, high thermal stability after final curing and very good flexibility.
Seam sealing	2-K Silicone	Köditec 2-K	High resistance to heat, water, oils and detergents.
Glass panel bonding	Hotmelt PUR	Swift®lock 2441	Curable using ambient humidity, offers a broad spectrum of adhesion, good temperature resistance, fast cohesion built up.
Flange sealing and pipe sealing	Anaerobics	Vibra-TITE SH 27	Medium strength, high viscosity, for pipe and flange sealing and instant gasket, can be dismantled.
Retaining and thread locking	Anaerobics	Vibra-TITE RH 98	High strength, high viscosity, thixotropic, high temperature resistance.
NVH Sound deadening	LASD - Liquid Applied Sound Deadener	Ko-Sonic 2140	Innovative sound damping system based on Polyurethane just liquid applied as thick film coating via a one-step flatstream application process; offers high damping performance with superior properties compared to traditional sound damping technologies.
Control panel bonding	Hotmelt PUR	Swift®lock 2441	Curable using ambient humidity, offers a broad spectrum of adhesion, good temperature resistance.
	Hotmelt PSA	Lunamelt PS 4015	Strong self-adhesive, good balance between stickiness and cohesion, good temperature and shear resistance.
Panel stiffening	2-K STP	Köräpop 240 2-K	Elastic, high cold and heat resistance, excellent moisture resistance.

# Pipe Sealing - Anaerobic Adhesives

APPLICATION

Pipe Sealing

TECHNOLOGY

Anaerobic Adhesives

REQUIREMENTS

For precise threads

For coarse threads

CHARACTERISTICS

Medium Strength

GHS Labelling Free

Medium Strength

PRODUCT

SM 40

ESH 22

SH 27

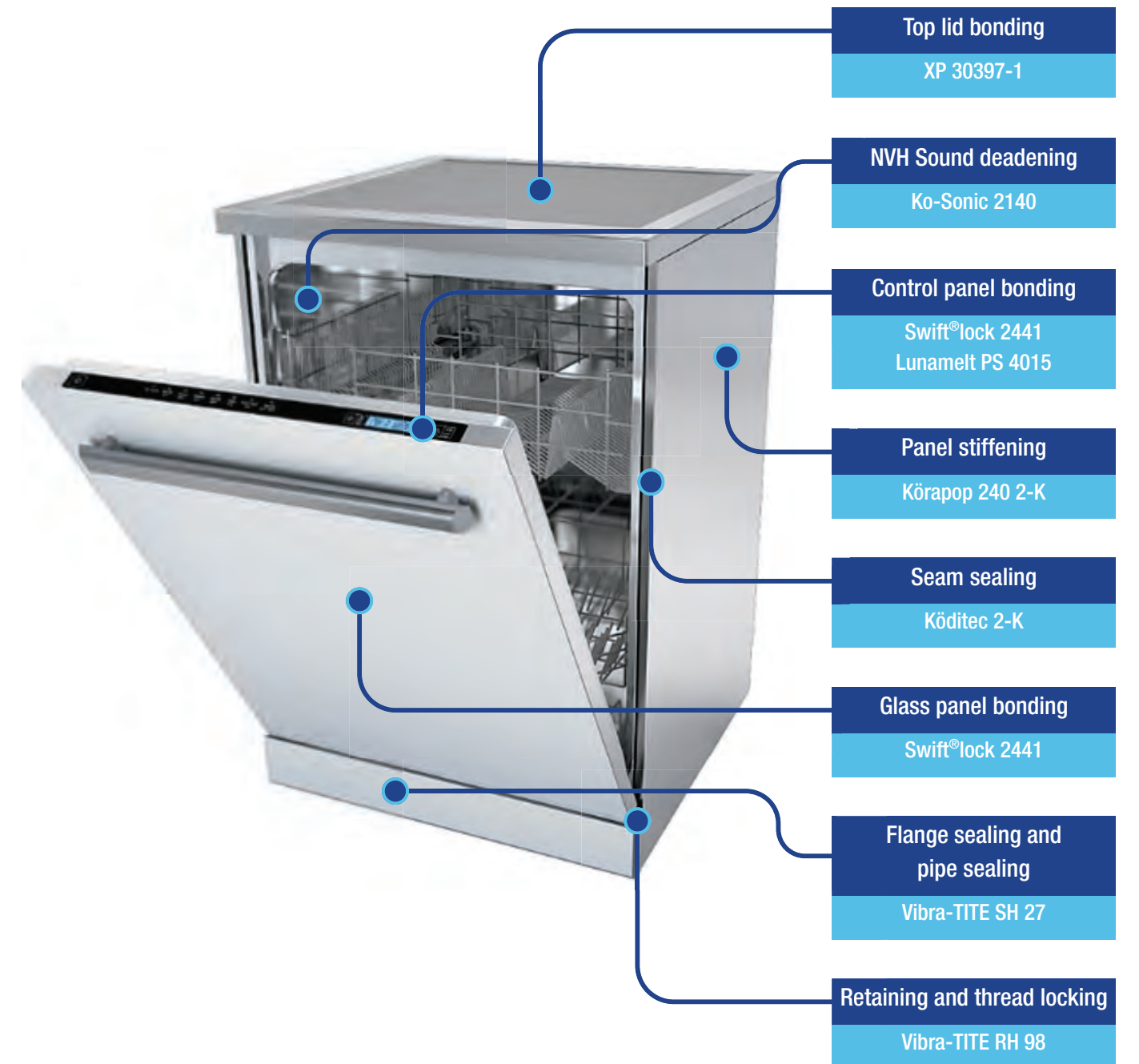


# Anaerobic Adhesives Technical Data

## Product Range

Product	Key Properties	Color	Max Size of Thread	Service Temperature	Packaging
ESH 22	Low strength, high viscosity pipe sealant; easy to dismantle.	White	R 2	-50 to +150 °C	50 g tube 250 g tube
SM 40	For hydraulic and pneumatic fine threads.	Brown	MA 20	-50 to +150 °C	10 g bottle 50 g bottle 250 g bottle
SH 27	Sealant for gas, steam and water pipes; DVGW certified for gas according DIN EN 751-1; approved for potable water.	Yellow	2"	-50 to +150 °C	50 g tube 250 g tube 75 g accordion
TT 27	Sealant for gas, steam and water pipes; DVGW certified for gas according DIN EN 751-1; approved for potable water.	Yellow	R 2	-50 to +150 °C	35 g pumpgel
TT 69	4 in 1 product: high temperature thread locker, retaining compound, pipe and flange sealant. Thixotropic formulation for all maintenance operations in a pump dispensing bottle; NSF P1 registered; approved for gas and potable water.	Green	R 1	-50 to +150 °C	35 g pumpgel

# Home Appliances | Dishwashers



# Home Appliances | Refrigerators and Freezers

## Recommended Solutions

Application	Technology	Key Products	Product Description
Control panel bonding	Hotmelt PUR	Swift®lock 2441	Curable using ambient humidity, offers a broad spectrum of adhesion, good temperature resistance, fast cohesion built up.
	Hotmelt PSA	Swift®melt 3648	High cohesion, very tacky, good heat resistance.
Components positioning	Cyanoacrylate	Vibra-TITE 2006	Fast curing adhesive with good ageing resistance, low viscosity.
	VHB Tape	Köratape AT3	Pressure sensitive bonding, solid composition for easy cutting, flexible, moldable and compressible, adhesion at sub-zero temperatures.
Handle reinforcement	2-K STP	Körapop 240 2-K	Elastic, high cold and heat resistance, excellent moisture resistance.
	2-K Silicone	Ködiglaze S	High strength and elasticity, excellent mechanical properties, very good adhesion.
Glass door bonding to ABS & metal frame	Hotmelt PUR	Swift®lock 2441	Curable using ambient humidity, offers a broad spectrum of adhesion, good temperature resistance.
NVH Sound deadening	LASD - Liquid Applied Sound Deadener	Ko-Sonic 2104	Innovative sound damping system based on Polyurethane just liquid applied as thick film coating via a one-step flatstream application process; offers high damping performance with superior properties compared to traditional sound damping technologies.
Interior door gasket bonding	Cyanoacrylate	Vibra-TITE 2008	Fast curing adhesive with good ageing resistance, very low viscosity enables very thin adhesive layer.
Foam stop	Non reactive Hotmelt	Swift®melt 1838	High tack properties, clear film, good adhesion to various materials like plastic, metals or painted materials.
Pipe thread sealing	Anaerobics	Vibra-TITE SH 27	Medium strength, high viscosity, for pipe and flange sealing and instant gasket, can be dismantled.
Evaporator & condenser coil bonding	Heat conducting Butyl	Ködiplast HV 648	Self-sticking, solvent free, good heat conductivity.
VIP plate bonding	Hotmelt PSA	Lunamelt PS 4015	Strong self-adhesive, good balance between stickiness and cohesion, good temperature and shear resistance.
Interior liner seam sealing	Hotmelt PSA	Lunamelt PS 4015	Strong self-adhesive, good balance between stickiness and cohesion, good temperature and shear resistance.
	1-K STP	Körapop 225	Elastic moisture curing adhesive and sealant with high cold and heat resistance and excellent moisture resistance.

# Gasketing - Anaerobic Adhesives

APPLICATION

Gasketing

TECHNOLOGY

Anaerobic Adhesives

REQUIREMENTS

Medium strength

High strength

PRODUCT

SH 55

SH 58

CHARACTERISTICS

Medium strength,  
high viscosity

Very high viscosity



# Anaerobic Adhesives Technical Data

## Product Range

Product	Key Properties	Color	Gap Filling	Service Temperature	Packaging
SH 55	High viscosity and medium strength.	Red	0,1 to 0,3 mm	-50 to +150 °C	50 g tube 250 g tube
SM 40	Very high viscosity flange sealant for large gap filling and high strength.	Red	0,1 to 0,5 mm	-50 to +150 °C	25 ml syringe 50 ml syringe 300 ml cartridge
TT 69	4 in 1 product: high temperature thread locker, retaining compound, pipe and flange sealant. Thixotropic formulation for all maintenance operations in a pump dispensing bottle; NSF P1 registered; approved for gas and potable water.	Green	0.1 to 0.2 mm	-50 to +150 °C	35 g pumpgel

# Home Appliances | Refrigerators and Freezers



# Portable Cabin Manufacturing

## Recommended Solutions

Product	Application	Key Properties	Key Benefits
Körapur 030	Gap Sealing on Metal Frame and Roof	Label-free elastic PU with high elasticity, good mechanical properties, and EN 15651 certification.	Ensures flexible and durable sealing with compliance for high standards.
Körapur 672 S	Panel Bonding	2-part low-viscosity PU adhesive, easy to apply. NV version with very low viscosity.	Provides precise bonding for panels with strong adhesive properties.
Körapur 840	Corner Bonding	2-part structural PU adhesive available in side-by-side and mixing cartridges.	Ensures durable structural bonding for corner joints.
Vibra-TITE SH 27	Threadsealing	Anaerobic thread sealant for water pipes, ideal for plumbing applications.	Provides reliable leak-proof sealing for threaded joints in plumbing systems.
Körapop 257	General Sealing and Bonding	Solvent- and plasticizer-free, UV-resistant MS adhesive.	Durable and environmentally friendly sealing solution.
Körapop 235	General Sealing and Bonding	Multipurpose elastic MS adhesive with good mechanical properties and elasticity.	Suitable for versatile sealing and bonding needs.
Köracoll WB 20	Floor Bonding	Water-based adhesive, applicable with spatula, EC1+ certified.	Eco-friendly adhesive for reliable floor bonding.
TEC 540	Floor Bonding	Water-based floor adhesive, applicable with spatula.	Ensures durable bonding for various floor types.
Körapren FU 36	Floor Bonding	Solvent-based adhesive, applicable with brush or tooth trowel.	Main choice for floor bonding, offering strong adhesion.
Swift® col 2035	Floor Bonding	Solvent-based adhesive for spray application or high heat resistance.	Perfect for demanding environments requiring heat-resistant floor bonding.

## Anaerobic Adhesives - Overview

Main Application	Product	Strength class/color	Approvals	Fluorescence	Viscosity at 20 °C [mPa·s]		Initial strength, M10 brass bolt and nut [s]	Shear strength on steel [N/mm <sup>2</sup> ]	Breakloose torque on... [M <sub>b</sub> in Nm]			Prevailing Torque [N·m]	Gap filling capacity [mm]	Temperature Range [°C]	Comments
					Shear rate @ 1 s <sup>-1</sup>	Shear rate @ 158 s <sup>-1</sup>			Steel	Stainless Steel	Brass (Galvanized Steel)				
T - Threadlocking Nuts and Bolts	TM 11	low violet	-	yes	2.000 - 3.500	90 - 120	10 - 30	8 - 16	6 - 12	6 - 14	8 - 16	< M <sub>b</sub>	M 12	-50 / +150	Easy disassembly; for precision screws.
	TM 44	medium blue	NSF (Nonfood Compounds Registration Program) Category Code S4	no	3.000 - 7.000	400 - 800	20 - 45	10 - 18	10 - 16	12 - 18	12 - 20	< M <sub>b</sub>	M 20	-50 / +150	For locking and sealing of threaded fasteners, which can be disassembled with standard hand tools.
	TH 62	high red	-	yes	2.000 - 10.000	700 - 1.200	10 - 30	18 - 28	20 - 30	16 - 26	14 - 26	> M <sub>b</sub>	M 24	-50 / +150	High viscosity/high strength threadlocker with gap filling properties.
	TM 66	high green	NSF (Nonfood Compounds Registration Program) Category Code S4	no	-	500 - 800	10 - 30	18 - 28	20 - 28	16 - 24	14 - 26	> M <sub>b</sub>	M 20	-50 / +150	For permanently locked screws, studs etc.
	TT 44	medium blue	-	no	100.000 - 200.000	6.000 - 8.500	10 - 30	10 - 18	10 - 20	8 - 18	10 - 24	> M <sub>b</sub>	M 50	-50 / +150	High viscosity threadlocker with gap filling properties; in pump gel pack size.
	TT 62	high red	-	yes	100.000 - 300.000	4.000 - 7.000	10 - 30	20 - 30	20 - 30	12 - 24	14 - 24	> M <sub>b</sub>	M 50	-50 / +150	High viscosity threadlocker with gap filling properties; in pump gel pack size.
R - Retaining	RL 65	medium green	-	yes	-	18 - 25	10 - 30	10 - 22	6 - 14	4 - 10	4 - 10	> M <sub>b</sub>	-	-50 / +150	For post application; cylindrical and threaded parts; very low viscosity locking grade.
	RL 67	high green	-	no	-	90 - 140	10 - 30	24 - 44	16 - 26	20 - 34	20 - 34	> M <sub>b</sub>	M 12	-50 / +150	For cylindrical parts like bearings, shafts, motors, studs etc.; low viscosity.
	RM 88	high green	-	no	-	400 - 800	10 - 30	24 - 44	20 - 40	20 - 30	30 - 40	> M <sub>b</sub>	M 20	-50 / +180	Temperature resistant; for cylindrical parts like bearings etc.
	RH 88	high green	-	no	15.000 - 35.000	900 - 1.400	10 - 30	24 - 44	24 - 40	14 - 24	20 - 30	> M <sub>b</sub>	M 36	-50 / +200	High temperature resistant; for dynamic loaded parts like bearings, shafts, etc.
	RH 99	high green	-	no	5.000 - 10.000	1.900 - 2.500	10 - 30	24 - 44	20 - 30	20 - 30	30 - 40	> M <sub>b</sub>	R 3"	-50 / +180	For dynamic loaded parts.
	Titan 7680	high green	-	yes	-	1.200 - 1.700	10 - 30	26 - 46	22 - 32	18 - 28	22 - 38	> M <sub>b</sub>	R 1 1/2"	-50 / +180	For dynamic loaded parts such as in gearboxes etc.
S - Sealing	SH 27	medium yellow	DVGW approved for gas fittings (DIN EN 751-1) NSF (Nonfood Compounds Registration Program) Category Code S2	no	70.000 - 120.000	6.000 - 9.000	20 - 60	10 - 20	10 - 20	18 - 26	10 - 20	< M <sub>b</sub>	R 2"	-50 / +150	Pipe and flange sealing.
	SM 40	medium brown	-	no	1.000 - 2.000	60 - 80	20 - 45	6 - 12	8 - 14	8 - 14	8 - 14	< M <sub>b</sub>	M 20	-50 / +150	For hydraulic and pneumatic fire threads.
	TT 27	medium yellow	DVGW approved for gas fittings (DIN EN 751-1) NSF (Nonfood Compounds Registration Program) Category Code S2	no	70.000 - 120.000	6.000 - 9.000	20 - 60	10 - 20	10 - 20	18 - 26	10 - 20	> M <sub>b</sub>	R 2"	-50 / +150	Pipe sealing in pump gel pack size.
	SH 55	high green	-	no	100.000 - 250.000	3.000 - 6.000	60 - 90	6 - 12	6 - 14	8 - 14	8 - 18	< M <sub>b</sub>	-	-50 / +150	Flange sealant.
Gaskets	SH 58	high green	-	yes	100.000 - 300.000	19.000 - 28.000	30 - 60	4 - 10	2 - 10	4 - 12	2 - 10	> M <sub>b</sub>	-	-50 / +150	High viscosity instant gasket; gap filling.
	TT 69 -4m1-	medium to high green	DVGW approved for gas fittings (DIN EN 751-1) NSF (Nonfood Compounds Registration Program) Category Code S4	no	20.000 - 80.000	1.000 - 3.000	10 - 30	10 - 20	10 - 20	10 - 22	10 - 20	> M <sub>b</sub>	R 1"	-50 / +150	3 solutions in 1 product: threadlocking, retaining, pipe- and flange-sealing. Both in tube and in pump gel pack sizes.
ECO Line	ESH 22	low white	-	no	120.000 - 250.000	7.000 - 12.000	15 - 60	2 - 4	2 - 6	1 - 6	2 - 8	< M <sub>b</sub>	R 2"	-50 / +150	Easy to dismantle pipe and flange sealant and instant gasket; no risk labelling.
	ETM 44	medium blue	-	yes	3.000 - 8.000	400 - 800	10 - 30	10 - 18	10 - 18	12 - 20	12 - 20	< M <sub>b</sub>	M 20	-50 / +150	For locking and sealing of threaded fasteners, which can be disassembled with standard hand tools; no risk labelling.
	ETM 66	high green	-	yes	-	600 - 800	20 - 60	12 - 20	16 - 26	8 - 14	10 - 20	> M <sub>b</sub>	M 20	-50 / +150	For permanent locking and sealing of threaded fasteners; no risk labelling.
	ERM 88	high green	-	yes	-	400 - 700	20 - 60	15 - 22	16 - 26	8 - 16	4 - 10	> M <sub>b</sub>	M 20	-50 / +180	For bonding of cylindrical fitting parts, high temperature resistance; no risk labelling.
	ETH 62	high red	-	yes	-	3.000 - 4.200	60 - 120	-	20 - 26	10 - 18	-	-	M 36	-50 / +180	High viscosity, high strength, high temperature resistance, with gap filling properties. No risk labelling.

- Viscosity is measured with cone / plate method at 20 °C. Newtonian fluids are measured at shear rate 158 s<sup>-1</sup> and shear rate 1 s<sup>-1</sup>. Thixotropic fluids are measured at shear rate 158 s<sup>-1</sup> following DIN 54452 pin / collar specimen. Breakloose torque in Nm according to DIN 54454, free swimming without on-torque.
- Surfaces should be cleaned and degreased before applying the adhesive. If the adhesive is applied at temperatures below 5 °C, an activator should be used. Approved for use as a sealant in the food processing industry in areas where there is no possibility of food contact.

# Instant Bonding

Instant adhesives, known for their extraordinary adhesion profile, are one-component, solvent-free, fast-setting cyanoacrylate adhesives.

These cyanoacrylates cure within seconds in the presence of a weak base, such as surface moisture, and will bond well to a wide range of substrates. No other adhesives offer a better combination of convenience, ease of use, dependability, and strength. Whether you're bonding rubber, plastic, metal, wood, or other surfaces, H.B. Fuller's instant adhesives will give you the performance you need.

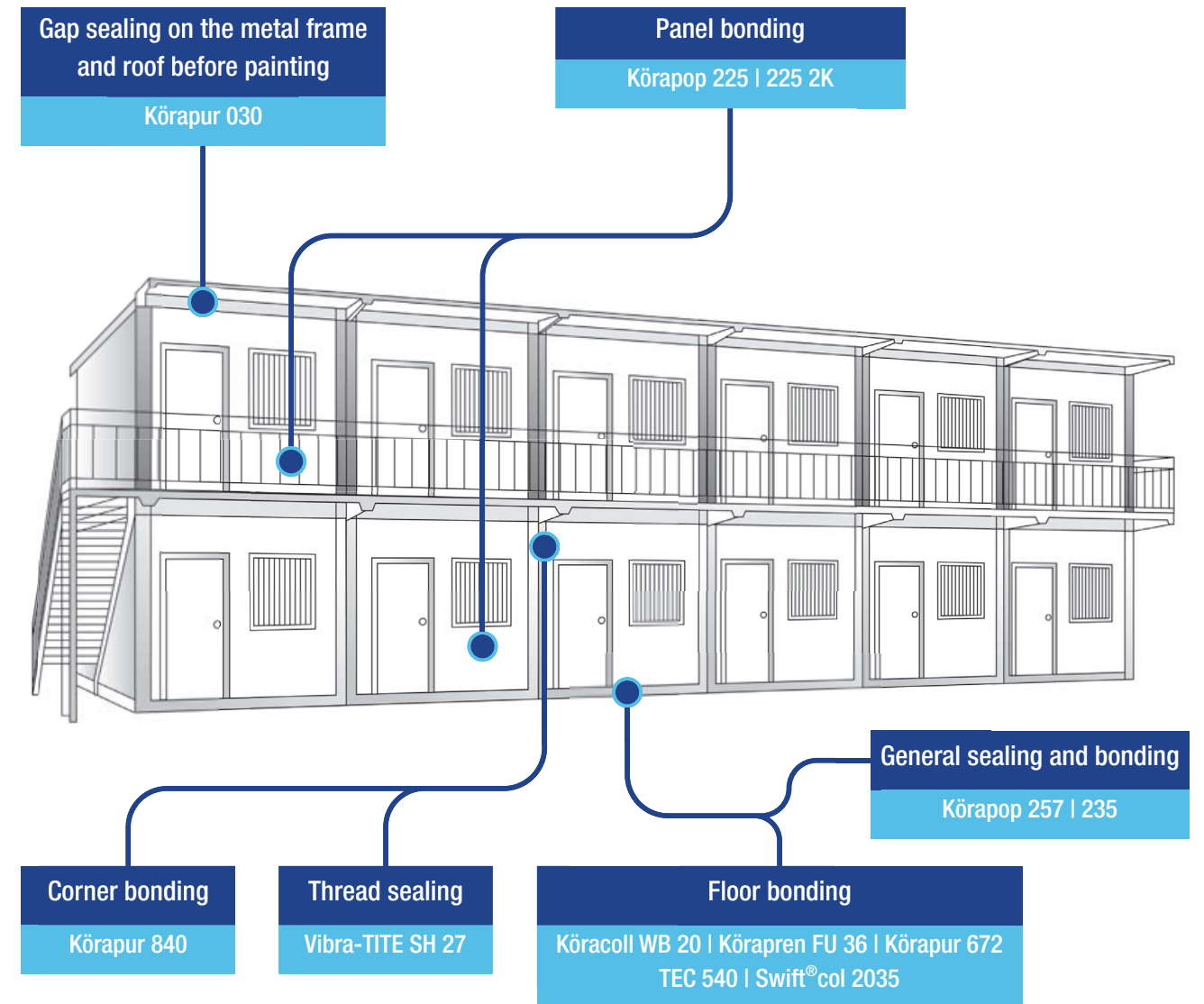
## TECHNOLOGY

### Instant Bonding

#### Cyanoacrylate Adhesives

Solvent-free 1K reaction adhesives, based on cyanoacrylate esters. They react with air humidity and cure by polymerization within seconds at room temperature. To reach optimal results it is important to work with thin adhesive layers and to keep the mating parts as small as possible as the adhesives reacts very quickly. Cyanoacrylates are used to bond metals, plastics, wood and elastomers.

# Portable Cabin Manufacturing



# Prefabricated Bathroom Assembly

## Recommended Solutions

Product	Application	Key Properties	Key Benefits
Köräpop 225 2K	Tile Panel Bonding	2-part MS adhesive for large gap filling and faster curing.	Provides strong and durable bonding with fast curing for large gaps.
Köräpop 225	Tile Panel Bonding	Multipurpose MS with good mechanical properties and EC1+ low emission certification.	Ideal for low-emission bonding in bathroom environments.
Köräpur 030	Tile Panel Bonding	Label-free elastic PU with high elasticity, good mechanical properties, and EC1+ certification.	Offers flexible and durable bonding with low emissions for environmentally safe usage.
Ködiplast CT 100	Perimeter Sealing	Non-drying, industrial butyl solution for elastic and removable sealing.	Permanently elastic, maintenance-friendly sealing for bathroom perimeters.
Vibra-TITE SH 27	Threadsealing	Anaerobic thread sealant for water pipes, ideal for plumbing applications.	Ensures leak-proof sealing, resistant to water and pressure.
Köracoll WB 20	Floor Bonding	Water-based adhesive, applicable with spatula, EC1+ certified.	Eco-friendly floor adhesive with easy application and reliable bonding.
TEC 540	Floor Bonding	Water-based floor adhesive, applicable with spatula.	Provides durable bonding for various floor types.
Köräpre FU 36	Floor Bonding	Solvent-based adhesive, applicable with brush or tooth trowel.	Main choice for floor bonding, offering strong adhesion.
Swift <sup>®</sup> col 2035	Floor Bonding	Solvent-based adhesive for spray application or high heat resistance.	Perfect for demanding environments requiring heat-resistant floor bonding.
Köräpur 672	Floor Bonding	2-part low-viscosity PU adhesive, easy to apply.	Suitable for precision floor bonding with strong adhesive properties.

# Instant Bonding - Cyanoacrylate Adhesives

APPLICATION

Instant Adhesives

TECHNOLOGY

Cyanoacrylate Adhesives

REQUIREMENTS

Multipurpose

For porous substrates

Rubber and plastic bonding

High mechanical properties

PRODUCT

2610

2999

2006

2240 Xtraflex

CHARACTERISTICS

Multipurpose, NSF P1 registered

Surface insensitive multipurpose grade in gel

Very fast solution, extremely good ageing properties; NSF P1 registered

Rubber toughened grade, NSF P1 registered

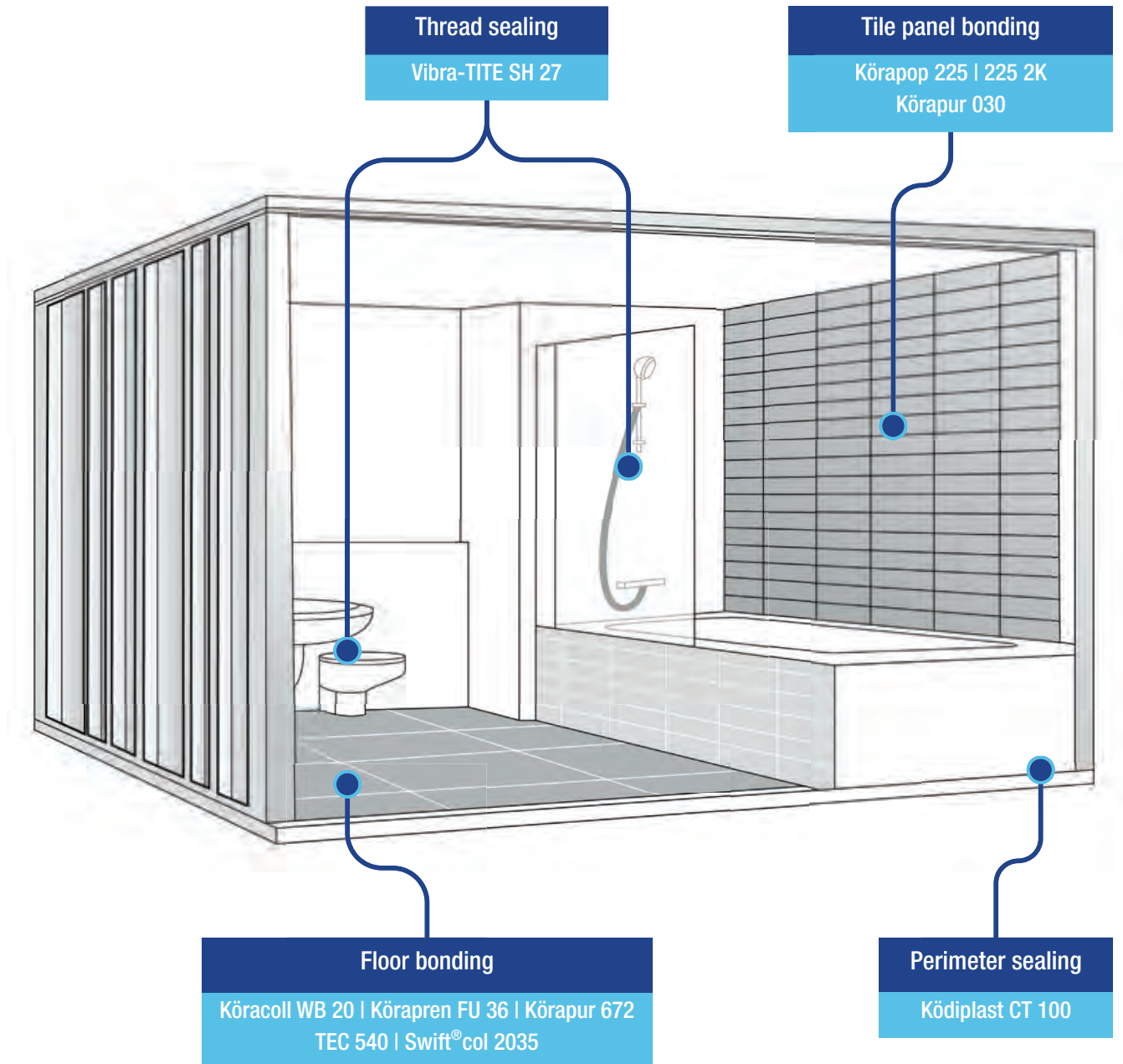


# Cyanoacrylate Adhesives Technical Data

## Product Range

Product	Key Properties	Setting Time on Rubber	Service Temperature	Packaging
2610	Multipurpose grade, suitable for metal, plastics, rubbers and materials such as wood, paper, leather and fabric; ISO 10993-5 and NSF S4 registered.	1-3 sec	-55 to +95 °C	20 g bottle 50 g bottle 500 g bottle
2999	Surface insensitive multipurpose grade in gel, suitable for metal, plastics, rubbers as well as wood, leather, cardboard and porous materials; ISO 10993-5 registered.	10-14 sec	-55 to +95 °C	20 g tube 300 g cartridge
2006	Very fast solution for rubber and plastic bonding with extremely good ageing properties; ISO 10993-5 and NSF S4 registered.	1-3 sec	-55 to +95 °C	20 g bottle 50 g bottle 500 g bottle
2240 Xtraflex	Rubber toughened grade, for joints subject to dynamic stress and high temperature, especially metal/plastic and metal/rubber combinations; Opaque color. ISO 10993-5 and NSF S4 registered.	7-11 sec	-55 to +140 °C	20 g bottle 50 g bottle 500 g bottle
2028	Medium viscosity, very fast solution for rubber and plastic bonding with extremely good ageing properties. ISO 10993-5, -10, -11 and NSF S4 registered.	2-4 sec	-55 to +95 °C	20 g bottle 50 g bottle 500 g bottle
2077	High viscosity, very fast solution for rubber and plastic bonding with extremely good ageing properties. ISO 10993-5, -10, -11 and NSF S4 registered.	3-5 sec	-55 to +95 °C	20 g bottle 50 g bottle 500 g bottle
2150	Multipurpose grade, very high viscosity, suitable for metal, plastics, rubbers and materials such as wood, paper, leather and fabric; ISO 10993-5 approved.	3-10 sec	-55 to +95 °C	20 g bottle 50 g bottle 500 g bottle
2011	Specific for bonding rubber and plastics including EPDM, medium viscosity (65-200 mPas), ISO 10993-5, -10, -11 approved.	2-4 sec	-55 to +95 °C	20 g bottle 50 g bottle 500 g bottle
5508	Low odour, low blooming (whitening effect) and low outgassing, medium viscosity (40-80 mPas). ISO 10993-5 approved.	2-8 sec	-30 to +70 °C	20 g bottle 50 g bottle 500 g bottle
2243	Impact resistant, partly flexible, medium viscosity (240-360 mPas), excellent for metal-to-rubber and metal-to-plastic combinations, high temperature resistance (up to 140°C). ISO 10993-5 approved. Black colored.	4-10 sec	-55 to +140 °C	20 g bottle 50 g bottle 500 g bottle

# Prefabricated Bathroom Assembly



# Store Refrigerators

## Recommended Solutions

Product	Application	Key Properties	Key Benefits
Körapop Transparent	Glass to Metal Structure	Multipurpose MS adhesive with good mechanical properties and indirect food approval (ISEGA).	Provides strong bonding for glass-to-metal structures with food-safe compliance.
Körapop ALU	Glass to Metal Structure and Metal Structure/Corner Sealing	Mold- and fungus-resistant MS adhesive.	Ensures hygienic bonding and sealing in food-related environments.
Körapop 225	Metal Structure/Corner Sealing	Multipurpose MS adhesive with good mechanical properties and indirect food approval (ISEGA).	Durable and food-safe bonding solution for metal corners and joints.
Körapur 030	Metal Structure/Corner Sealing	Label-free elastic PU with high elasticity, good mechanical properties, and indirect food approval (ISEGA).	High-performance bonding for metal structures with food safety compliance.
Vibra-TITE SH 27	Threadsealing	Anaerobic, chemical-resistant thread sealant for gas, Freon, and chemicals.	Provides leak-proof, chemical-resistant sealing for refrigeration systems.
Ködiplast CT 100	Perimeter Sealing	Non-drying, industrial butyl solution for elastic and removable sealing.	Permanently elastic and maintenance-friendly sealing for refrigeration systems.

## Cyanoacrylate Adhesives - Overview

Application	Product	Appearance	Viscosity [mPa·s]	Setting Time			Shear Str.	Temperature Range [°C]	ISO 10993		NSF Approval	Comments
				Metal	Rubber	Plastic			Wood	Medical Approval		
Powerdrop® Series Base: ethyl-2-cyanoacrylate	2004	colourless	7-11	30-50	3-6	2-4	>50	-55 / +95	10993-5			Carefully stabilised, fast bonding Cyanoacrylates for maintenance and DIY applications.
	2605	colourless	45-65	10-25	1-2	1-3	>35	-55 / +95				
	2003	colourless	55-85	45-70	6-10	5-7	>70	-55 / +95	10993-5			
Elastomer and Plastic Series Base: ethyl-2-cyanoacrylate	2800	colourless	3-7	18-28	1-3	2-4	>80	-55 / +95	10993-5; -10; -11			Very fast Rubber to Rubber Adhesives with extremely good ageing properties. Reliable Plastic to Plastic applications and best choice for Rubber to Plastic combinations. Fluorescent properties are optional.
	2008	colourless	12-18	18-28	1-3	2-4	>60	-55 / +95	10993-5; -10; -11	S4		
	2006	colourless	15-30	20-35	1-3	3-5	>60	-55 / +95	10993-5	S4		
	2011	colourless	80-120	20-35	2-4	2-4	>60	-55 / +95	10993-5; -10; -11			
	2028	colourless	160-240	20-35	2-4	2-4	>60	-55 / +95	10993-5; -10; -11	S4		
	2077	colourless	800-1,200	25-45	3-5	5-7	>60	-55 / +95	10993-5; -10; -11	S4		
Neomer Series (Surface Insensitive) Base: ethyl-2-cyanoacrylate	1603	colourless	1.500-2.000	25-45	4-6	6-8	>60	-55 / +95	10993-5; -10; -11			The Neomer Cyanoacrylates are representing the so called surface insensitive grades. Very good results on acidic surfaces like wood, leather, cardboard etc. The higher viscosities are also very suitable for porous materials like ceramic, china etc.
	2600	colourless	3-7	10-25	1-3	1-3	>45	-55 / +80				
	2610	colourless	90-140	13-25	1-3	1-3	>40	-55 / +80	10993-5	S4		
	2150	colourless	2.100-3.300	30-50	6-10	6-9	>60	-55 / +95	10993-5			
Xtraflex Series (Rubber Toughened) Base: ethyl-2-cyanoacrylate	2999	colourless	8.000-15.000 tx	50-90	10-14	13-19	>80	-55 / +95	10993-5			Rubber toughened Cyanoacrylates, for dynamic and temperature loaded bonds. These Xtraflex grades also guarantee a certain shock resistance. Very good results for Metal to Plastic and Metal to Rubber combinations.
	2244	opaque	130-180	40-65	3-6	5-9	>60	-55 / +120				
	2243	black	240-360	40-65	4-8	5-9	>60	-55 / +130	10993-5			
	2245	opaque	400-600	35-70	3-6	5-9	>60	-55 / +120	10993-5	S4		
	2241	black	1.900-2.900	50-80	9-12	7-13	>40	-55 / +140	10993-5			
Metal Series Base: ethyl-2-cyanoacrylate	2240	opaque	2.000-3.000	45-70	7-11	7-13	>40	-55 / +140	10993-5	S4		Metal to metal, metal to rubber and metal to plastic bonding.
	1008	colourless	9-15	20-35	3-6	4-6	-	-55 / +95				
	1070	colourless	70-110	20-35	3-6	4-6	-	-55 / +95		S4		
Low Odor Series Base: methoxy ethyl cyanoacrylate	1699	colourless	1.800-2.200	20-35	3-6	4-6	-	-55 / +95				Low odor, low blooming, low out-gassing characteristics. No risk labelling.
	5500	colourless	3-7	10-25	4-7	9-12	>60	-30 / +70	10993-5			
	5508	colourless	45-80	35-70	4-7	14-17	>60	-30 / +70	10993-5			
5600	colourless	800-1.200	45-70	13-20	19-22	>70	-30 / +70	10993-5				

- Viscosity measured with cone/plate method at 20° C; with regards to newtonian fluids measured with cone Ø 75 mm at 30 rev/min; in terms of thixotropic fluids (tx) measured with cone Ø 50 mm at 5 rev/min.
- Setting time in seconds at Steel, EPDM, ABS, Beech.
- Shear strength at Steel, measured in N/mm<sup>2</sup>, with the other materials – such as EPDM, ABS, Beech – you normally reach substrate failure.

# Structural Bonding

Structural bonding uses adhesives in load bearing applications to augment or replace traditional mechanical fasteners, including welding, screws, etc.

Our structural adhesives for high-strength connections will structurally bond a variety of plastics, composites, woods, ceramics, and metals, due to their unique bonding properties. They are available in a full range of viscosities and cure speeds to meet specific application requirements.

## TECHNOLOGIES

### Structural Bonding

#### 2K Polyurethane

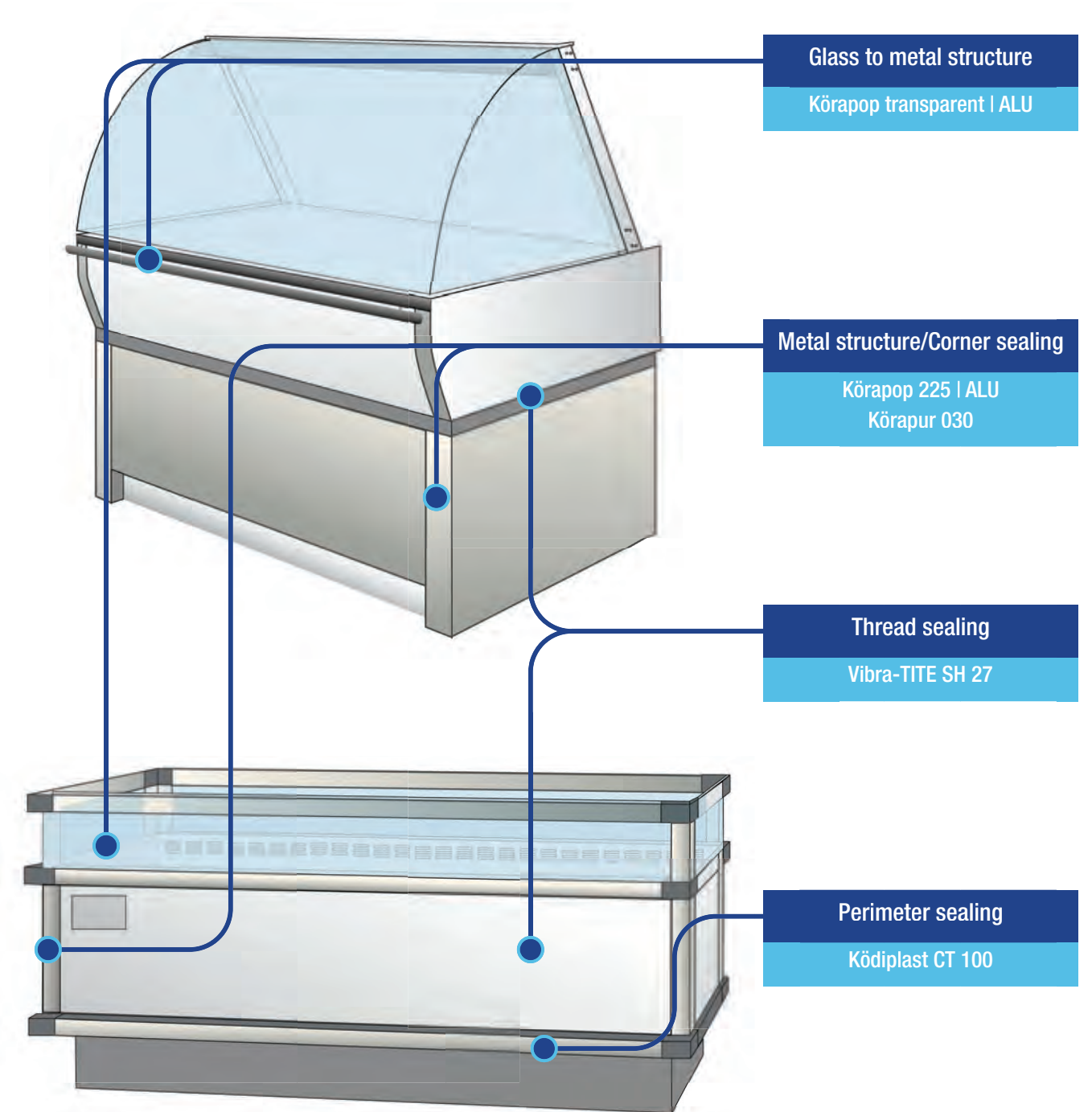
Solvent-free, 2K polyurethane-based reaction adhesives that will harden at room temperature for bonding a great variety of surfaces such as wood, GFRP, steel, aluminium, many plastics and hard foams based on PUR, PS or PVC.

Körapur 2K products consist of a resin and a hardening component that are mixed at a fixed ratio, whereupon they will harden into structural or semi-structural adhesives, irrespective of the humidity, that are also particularly suitable for applications involving large surfaces.

#### 2K Epoxy

Cold-curing 2K epoxy adhesives consist of resin and hardener. After mixing, they harden at room temperature within hours to a few days. Cured epoxy resin adhesives are always thermosets, which explains their high strengths as well as their relatively good resistance to moisture, many chemicals and environmental influences. The advantage of epoxy resin systems is evident in their wide range of applications. They are not only suitable for metal bonding, but also show good adhesion to many plastics. Epoxy resin adhesives, with their consistently high strengths, relatively high glass transition temperatures and very good fatigue resistance, are often used for so-called structural bonding, e.g. in vehicle construction, in the manufacture of rotor blades of wind turbines, but also for applications in the electronics industry. In general, bonding increases component rigidity, which also enables the use of thinner sheets even for components that are at risk of crashing. Likewise, connections between different types of metals or types of steel, which can't be welded due to their structure, can be realized by gluing. Today's lightweight automotive construction would not be possible without the use of adhesives and especially epoxy resin adhesives.

# Store Refrigerators



# Heat Exchangers

## Recommended Solutions

Product	Application	Key Properties	Key Benefits
Prodas 2264	Wheel Honeycomb Bonding on Rotary Heat Exchangers	Polyolefin-based hot melt adhesive.	Provides strong and durable bonding for rotary heat exchanger honeycomb wheels.
Körapop ALU	Core, Frame, and Fin Bonding	Fast-skinning STP adhesive with high mechanical performance, compliant with ISO 846 hygiene standards.	Ensures durable and hygienic bonding for HVAC systems and equipment.
Körapop 225 2K	Core, Frame, and Fin Bonding	2-part MS adhesive for attaining early strength and large gap filling. Certified EC1+.	Ideal for applications requiring quick curing and large gap-filling capabilities.
Körapur 672 NV	Potting/Lacquering	Pourable compound with ultimate corrosion protection and improved tightness of the exchanger. Available in various pot life profiles (60'/40'/10'/4').	Enhances corrosion resistance and tightness, ensuring long-lasting exchanger performance.

# Structural Bonding - 2K Polyurethane Adhesives

APPLICATION

Structural Bonding

TECHNOLOGY

2K Polyurethane

REQUIREMENTS

Wood, aluminum, rigid PVC, FRP, PUR/PS foams

Metals, foams, plastics

PRODUCT

Körapur 666/90

Körapur 790/30

COLOUR



CHARACTERISTICS

Thixotropic, high humidity resistance

Non-sagging, solvent- and plasticizer-free

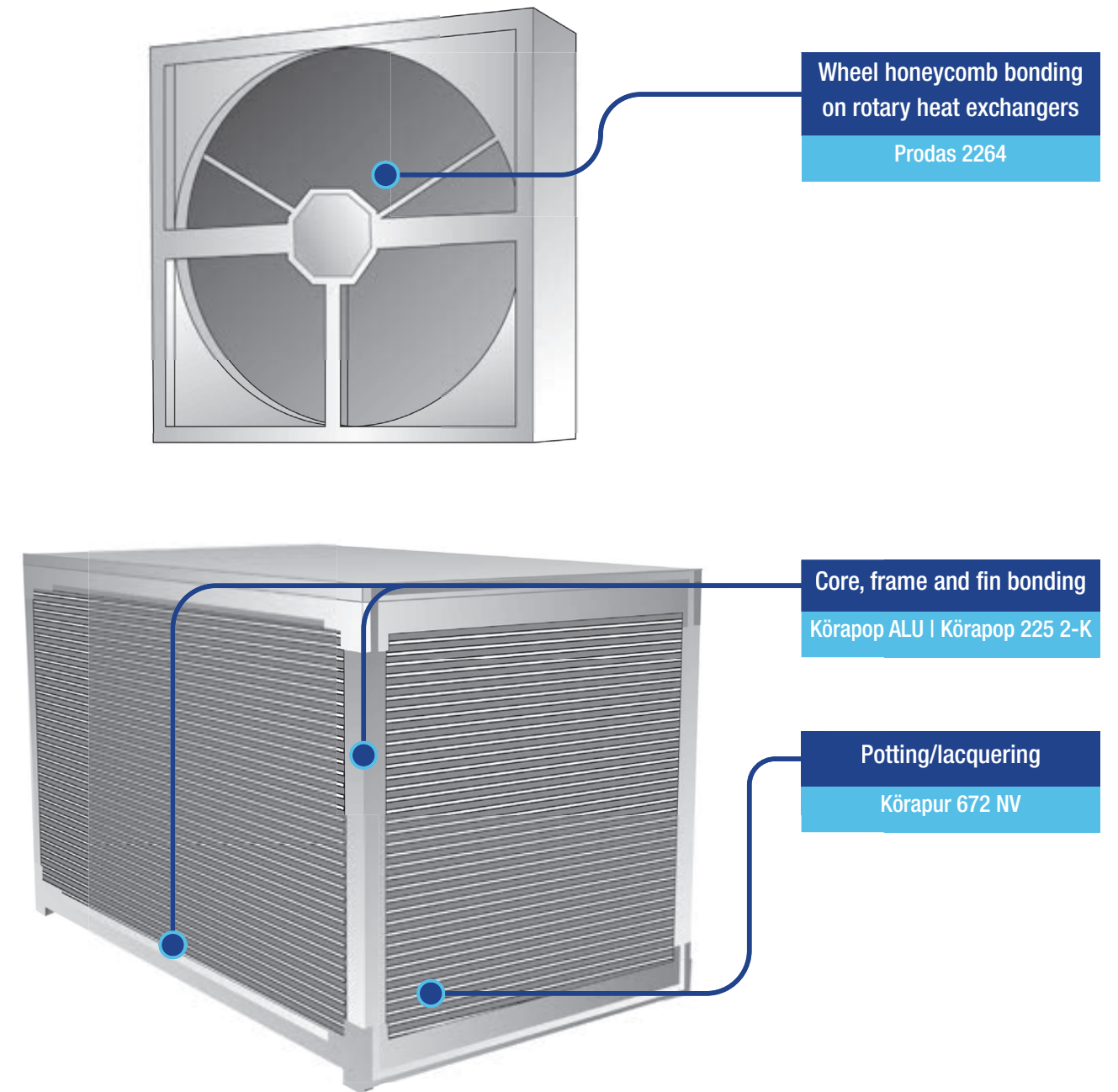


# 2K Polyurethane Adhesives Adhesives Technical Data

## Product Range

Product	Key Properties	Pot Life	Service Temperature	Packaging
Körapur 666/90	Thixotropic, easy to spread with spatula; high humidity resistance; available with many different pot life profiles.	90 min	-160 to +90 °C	350 g mixing cartridge 1 kg can 6 kg can 12 kg pail 30 kg pail 300 kg drum
Körapur 790/30	Non-sagging; easy to apply in the special u-TAH™ cartridge, fits into a standard dispensing gun; solvent- and plasticizer-free structural adhesive.	30 min	-160 to +90 °C	250 ml 2K cartridge
Körapur 648	Multipurpose; thixotropic adhesive with good resistance to humid substrates; low viscosity; long pot-life.	between 110 and 120 min	-160 to +90 °C	30 kg pail 270 kg drum
Körapur 672 S	Multipurpose adhesive with good resistance to humid substrates; medium viscosity; different pot-life's available.	between 4 and 60 min	-160 to +90 °C	30 kg pail 300 kg drum
Körapur 784	High performance multipurpose adhesive; high mechanical properties; no significant shrinkage; 1:1 mix ratio by volume; short open time.	1 min, 3 min, 5 min	-160 to +90 °C	50 ml tandem cartridge 400 ml tandem cartridge
Körapur 840	High impact strength; thixotropic; no significant shrinkage; wide range of pot-life profiles available; light flexible; comes in a normal single cartridge.	between 2 and 45 min	-160 to +90 °C	540 g tandem cartridge
Körapur 489	Elastic 2-part adhesive, high strength, high flexibility even at low temperatures, high shore hardness, plasticizer free, 10:1 mix ratio in volume.	9 min	-35 to +90 °C	220 ml tandem cartridge
Körapur 842	High flexibility even at low temperatures, high impact strength, structural 2-part adhesive.	8 min, 20 min, 65 min	-160 to 90 °C	360 g mixing cartridge 5 kg can 30 kg pail 300 kg drum
Köracur TH 650	Part B (Hardener) for 2-part structural polyurethane adhesives.	-	-	1 Kg can 5 kg can 10 kg can 25 kg jerrycan 30 kg pail 250 kg drum

# Heat Exchangers



# Industrial HVAC

## Recommended Solutions

Product	Application	Key Properties	Key Benefits
Körapop ALU	Seam Sealing	Elastic MS adhesive meeting hygiene requirements for HVAC systems (ISO 846).	Provides reliable seam sealing with compliance for hygiene standards.
Körapop 330	Elastic Panel Bonding and Sealing	EC1+ certified high-performance elastic adhesive with high initial grab.	Ensures strong and durable bonding with fast handling for panels.
Körapop 257	Elastic Panel Bonding and Sealing	Plasticizer-free elastic MS adhesive.	Offers high bonding strength for non-plasticized substrates.
Körapop 225 2K	Elastic Panel Bonding and Sealing	2-part MS adhesive for large gap filling and faster curing.	Ideal for HVAC panels requiring large gap fills and quick curing.
Swift <sup>®</sup> col 2035	Insulation Panel Bonding	Temperature-resistant polychloroprene contact adhesive.	Strong bonding for insulation panels in high-temperature environments.
Körapur 666	Insulation Panel Bonding	2-part PU adhesive, easy to apply and spread with a spatula.	Suitable for insulation panels needing reliable adhesion and easy application.
Ködiplast CT 100	Perimeter Sealing	Non-drying, industrial butyl solution for elastic and removable sealing.	Permanently elastic, allows for ease of maintenance in HVAC systems.
Vibra-TITE TM 44	Threadlocking for Nuts and Bolts	Medium-strength, thixotropic anaerobic threadlocker for disassemblable joints.	Prevents loosening and allows maintenance operations.
Vibra-TITE TM 66	Threadlocking for Nuts and Bolts	High-strength threadlocker for non-maintenance applications.	Provides secure fastening in high-stress conditions.
Vibra-TITE SH 27	Threadsealing	Anaerobic, chemical-resistant sealant for gas, steam, and water threads.	Ensures leak-proof and chemical-resistant sealing for HVAC fittings.

# Structural Bonding - 2K Epoxy Adhesives

APPLICATION

Structural Bonding

TECHNOLOGY

2K Epoxy Adhesives

APPLICATION SUBSTRATE

Glass, ceramic, stone, metals

PRODUCT

Körapox 735

CHARACTERISTICS

Reaction adhesive for fast bonding

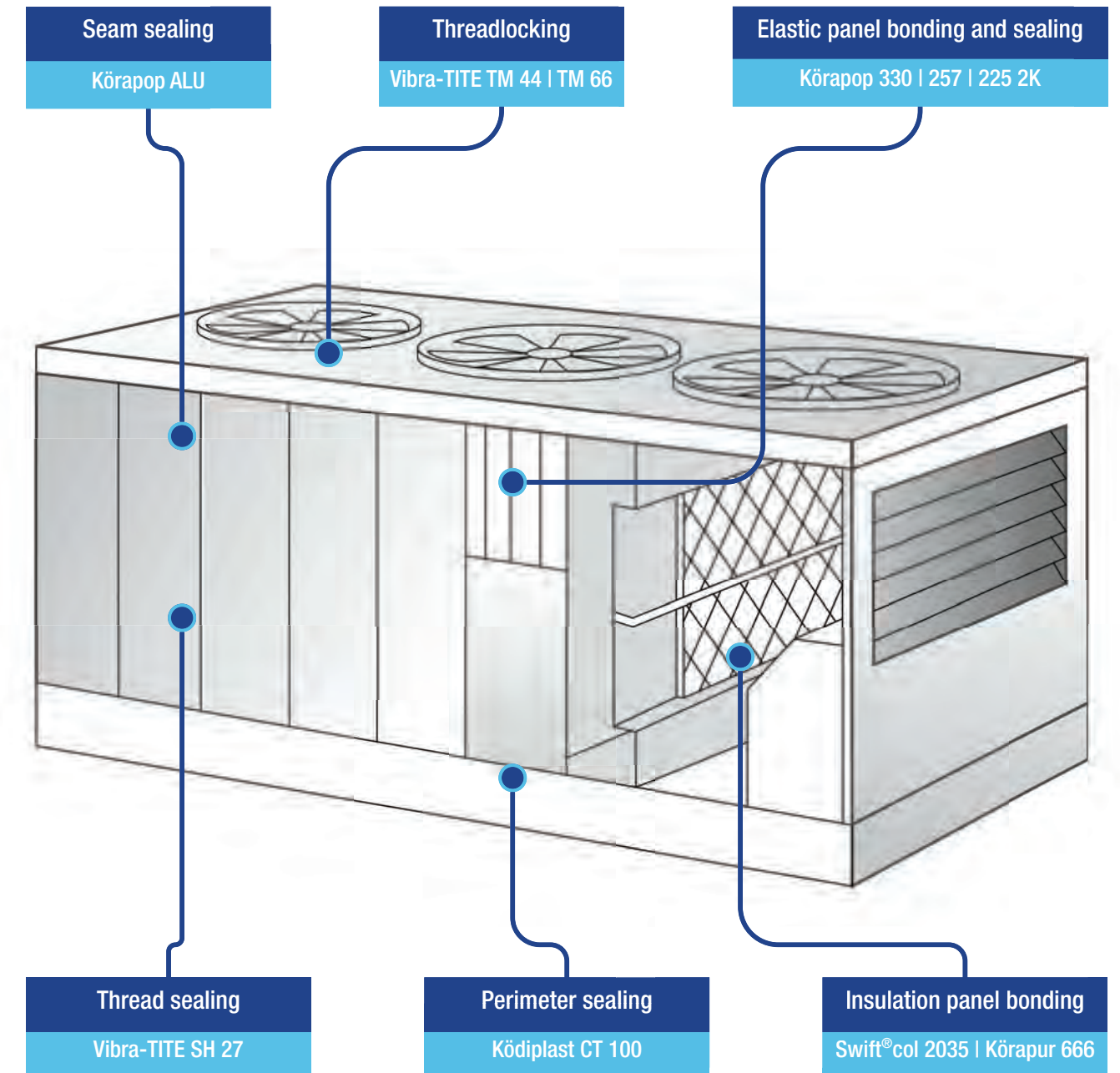


# 2K Epoxy Adhesives Adhesives Technical Data

## Product Range

Product	Key Properties	Pot Life	Service Temperature	Packaging
Körapox 735	Reaction adhesive for fast bonding and casting of glass, ceramic, stone, metal and electronic parts. Light yellowish colour.	5 min	-40 to +120 °C	5 kg pail
Isamet™ R 8268	High viscosity; long open time; pink colour; excellent chemical resistance; excellent weather resistance; excellent electrical insulation.	60 min	-40 to +120 °C	15 kg pail
Swift®bond 9163 N	Low viscosity; medium open time; beige colour; curing at room temperature possible.	28 min	-40 to +120 °C	14 kg pail 250 kg drum
Isamet™ R 8278	High viscosity; very long open time; pink colour; excellent chemical resistance; excellent weather resistance; excellent electrical insulation.	80 min	-40 to +120 °C	28 kg pail

# Industrial HVAC

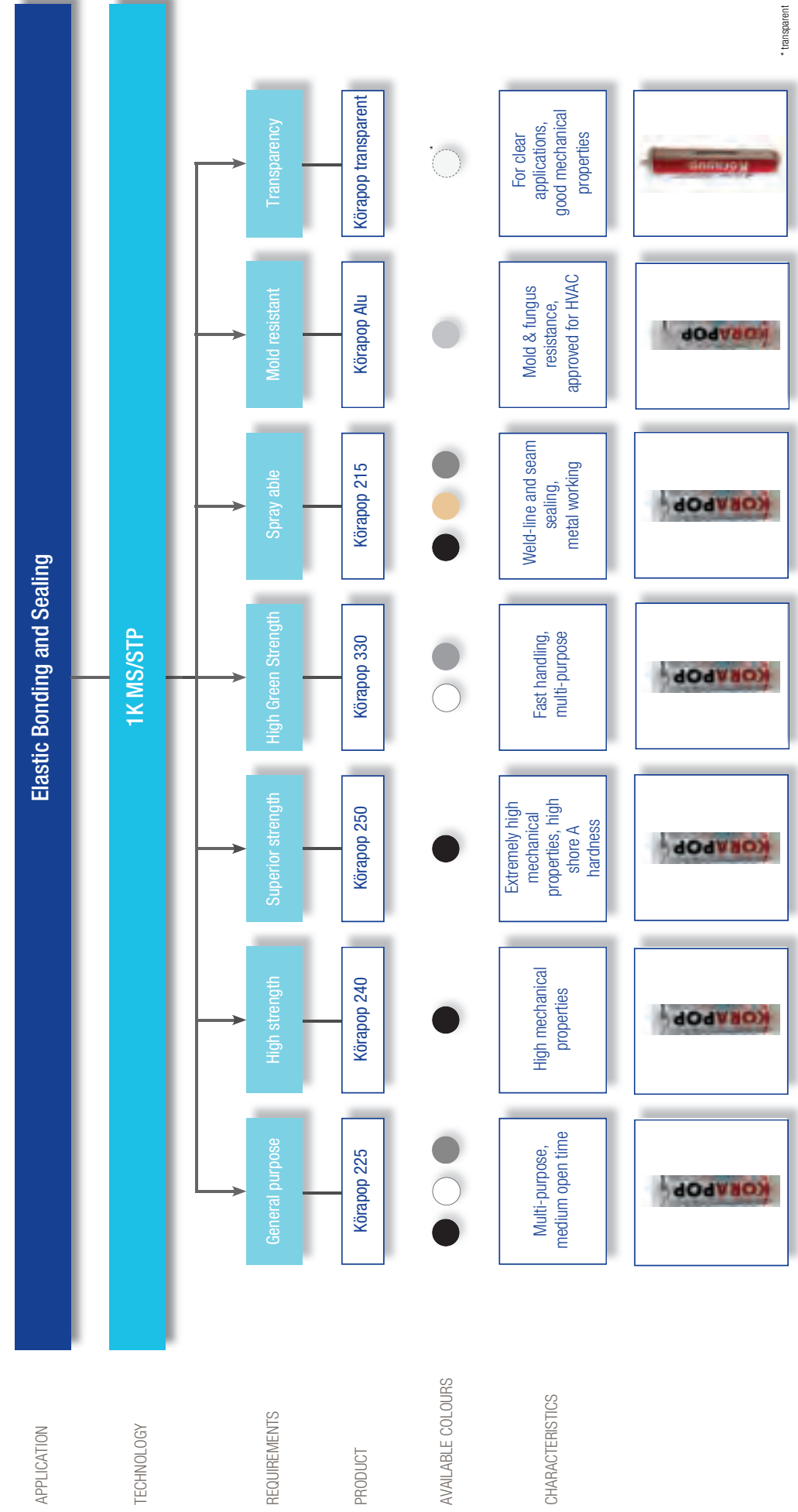


# Construction Equipment

## Recommended Solutions

Product	Application	Key Properties	Key Benefits
Körapop 235	Stiffener Bonding	Multipurpose elastic MS adhesive with good mechanical properties and elasticity.	Ensures durable and flexible bonding for stiffeners in construction equipment.
Körapop 215	Seam Sealing	Sprayable and brushable elastic MS with good resistance to humidity and excellent weather resistance.	Provides long-lasting sealing performance even in harsh environments.
Swift <sup>®</sup> col 2035	Sound-Dampening Panel Bonding	Temperature-resistant polychloroprene contact adhesive.	Offers strong and durable bonding for sound-dampening panels.
Swift <sup>®</sup> col 9720	Sound-Dampening Panel Bonding	Spray adhesive for contact and one-sided bonding.	Ensures quick and efficient bonding for sound-dampening panels.
Vibra-TITE TM 44	Threadlocking for Nuts and Bolts	Medium-strength, thixotropic anaerobic threadlocker for disassemble joints.	Prevents loosening and allows maintenance operations.
Vibra-TITE TM 66	Threadlocking for Nuts and Bolts	High-strength threadlocker for non-maintenance applications.	Provides secure fastening in high-stress conditions.
Vibra-TITE RM 88 / Vibra-TITE RH 99	Retaining of Bearings and Cylindrical Joints	Medium- and high-viscosity, high-strength retaining compounds for cylindrical parts such as bearings, shafts, bushes, rotors, and studs.	Ensures secure retention and prevents movement under mechanical stress.
Vibra-TITE SM 40	Thread Sealing	Anaerobic pipe sealant for hydraulic joints.	Provides leak-proof sealing and resists pressure and chemical exposure.

# Elastic Bonding and Sealing - 1K MS/STP Adhesives



# Elastic Bonding and Sealing

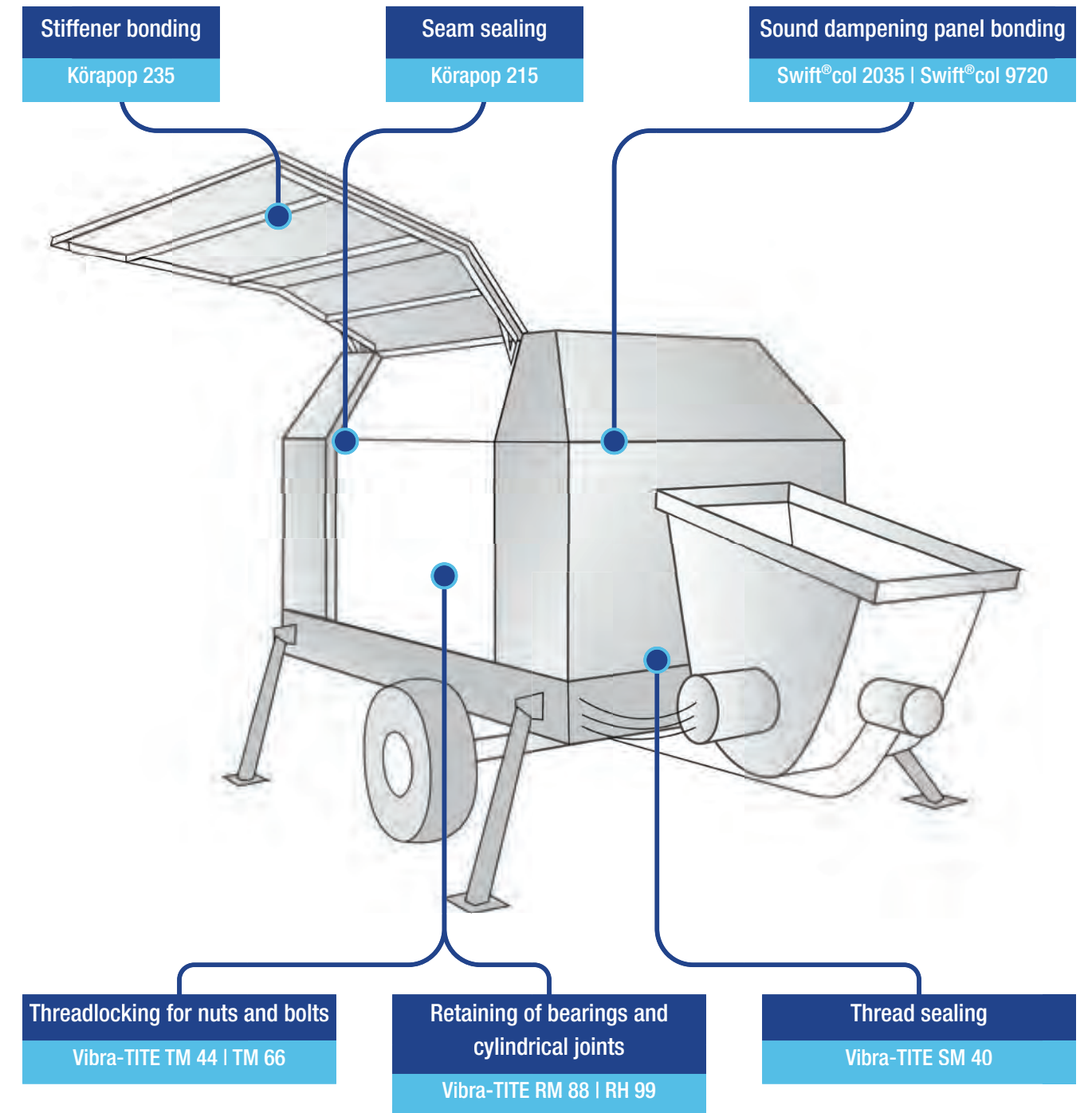
Elastic bonding and sealing applications typically include joints and seams experiencing high flexure or substrates having differential thermal expansion. Our elastic adhesives and sealants solutions have high flexibility and can maintain excellent bond strength through significant environmental conditions providing outstanding performance.

## TECHNOLOGIES

### Elastic Bonding and Sealing

1K MS/STP	Solvent-free 1K reaction adhesives that are based on silane-terminated polymers and will harden at room temperature for bonding and sealing a great variety of components such as wood-based materials, GFRP, untreated, primed and painted or anodized metals, as well as many plastics. Körapop 1K products react with moisture to form elastic adhesives and sealants that are in particular applied where different thermal length expansions require permanent compensation.
2K MS/STP	All our 1K MS/STP products can also be processed with our booster system for accelerated curing. This technology should be used if you want to reduce the influence of climate conditions on curing, if you want to bond diffusion-tight materials (e.g. metals) or if you want to have defined cycle times, robust and stable processes.
1K Polyurethane	Polyurethane-based 1K reaction adhesives that will harden at room temperature for bonding and sealing a great variety of materials such as wood-based materials, GFRP, untreated, primed and painted or anodized metals, as well as many plastics. 1K PUR products react with moisture to form elastic adhesives and sealants that are in particular applied where different thermal length expansions require permanent compensation.
Silicone	Silicone-based sealants for sealing, filling and grouting joints, cracks and transitions in ceramics, glass, steel, aluminium, wood, thermosetting and many thermoplastic materials. In comparison to polyurethane adhesives silicone glazing products show a better climate and UV-resistance.
Butyl	Solvent-containing, butyl rubber-based sealants for sealing joints, cracks and transitions in wood, metal, glass, many thermosetting plastics and other materials. Butyl sealants show their ultimate properties immediately upon application. They are distinguished by a broad adhesion spectrum and their excellent imperviousness to water vapour. Their high weathering stability also lends them a very good anti-corrosive effect on metals.

# Construction Equipment



# Compressors

## Recommended Solutions

Product	Application	Key Properties	Key Benefits
Körapop 235	Stiffener Bonding on Panels	Multipurpose elastic adhesive with good mechanical properties and elasticity.	Provides durable bonding with flexibility for compressor panel stiffeners.
Körapren FU 36	Sound-Dampening Panel Bonding	Solvent-based universal polychloroprene contact adhesive.	Ensures strong and versatile bonding for sound-dampening applications.
Swift <sup>®</sup> col 9720	Sound-Dampening Panel Bonding	Spray adhesive for contact and one-sided bonding.	Offers quick and efficient bonding for sound-dampening panels.
Vibra-TITE TM 44	Threadlocking for Nuts and Bolts	Medium-strength, thixotropic anaerobic threadlocker for disassemble joints.	Prevents loosening and allows maintenance operations.
Vibra-TITE TM 66	Threadlocking for Nuts and Bolts	High-strength threadlocker for non-maintenance applications.	Ensures reliable locking in high-stress environments.
Vibra-TITE RL 67	Retaining of Bearings and Cylindrical Joints	Low-viscosity retaining compound for cylindrical parts such as bearings, shafts, bushes, rotors, and studs.	Provides secure retention for cylindrical parts, preventing spin and wear.
Vibra-TITE SM 40	Thread Sealing	Anaerobic pipe sealant for hydraulic and pneumatic fine threads.	Ensures leak-proof sealing, resistant to pressure and chemicals.

# 1K MS/STP Adhesives Technical Data

## Product Range

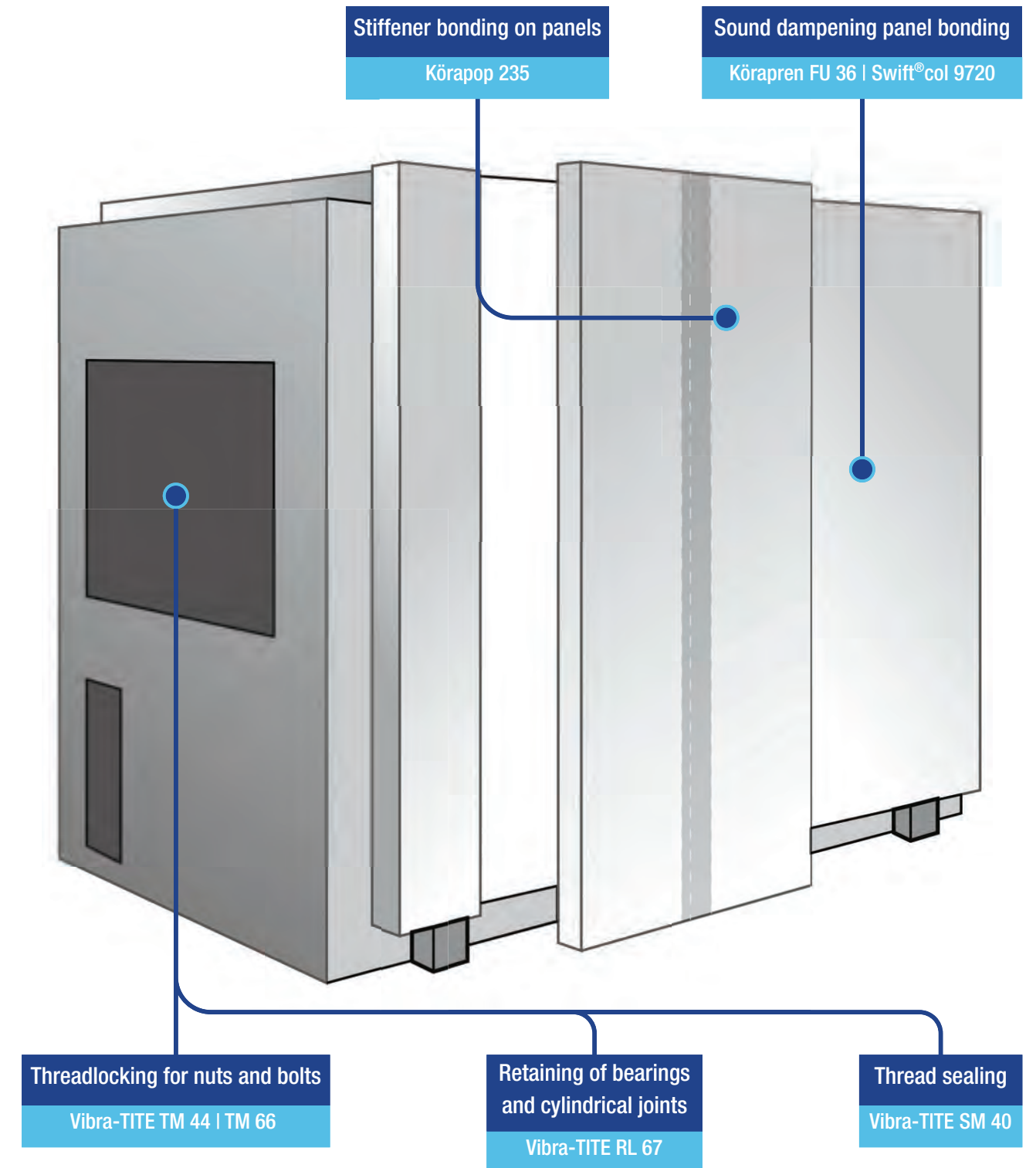
Product	Key Properties	Skin Formation Time	Tensile Strength	Packaging
Körapop 225	Elastic moisture curing adhesive and sealant; high cold and heat resistance; excellent moisture resistance. Available in white, grey and black.	25 min	2,8 MPa	310 ml cartridge 600 ml sausage 25 kg pail 270 kg drum
Körapop 240	Multipurpose elastic adhesive sealant with high mechanical properties and excellent weather resistance. Available in white, grey and black.	10 min	3,2 MPa	310 ml cartridge 600 ml sausage 25 kg pail 270 kg drum
Körapop 250	Elastic adhesive with very high mechanical features, high shore hardness, and suitable for a broader range of substrates. Black colour.	10 min	4,7 MPa	310 ml cartridge 600 ml sausage
Körapop 330	High green strength for fast handling; good resistance to humidity, weathering and temperatures. Available in white and grey.	10 min	2,3 MPa	310 ml cartridge 600 ml sausage 300 kg drum
Körapop 215	Sprayable elastic sealant for sealing welding lines and joints in metalworking in general. Product approved by various OEMs as a protective from gravel and stones. Available in black, grey and beige.	25 min	1,6 MPa	310 ml cartridge 25 kg pail 270 kg drum
Körapop Alu	Elastic moisture curing adhesive and sealant; high cold resistance; excellent moisture resistance; approved for HVAC use. Aluminum colour.	15 min	3,1 MPa	310 ml cartridge
Körapop Transparent	Elastic moisture curing transparent adhesive and sealant with good mechanical features, excellent moisture and weather resistance.	10 min	3,0 MPa	310 ml cartridge

# 1K MS/STP Adhesives Technical Data

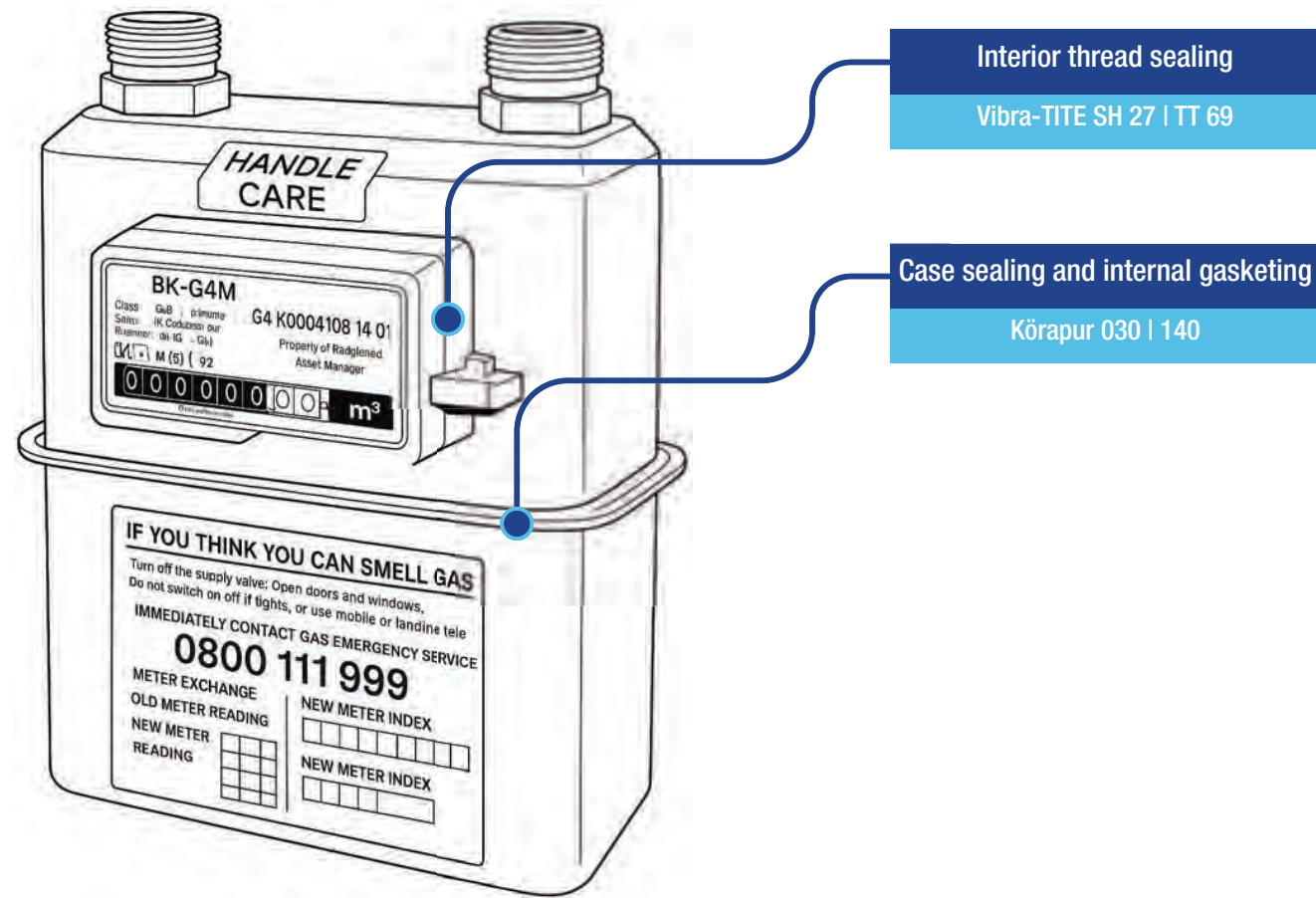
## Product Range

Product	Key Properties	Skin Formation Time	Tensile Strength	Packaging
Körapop 220	High shore hardness; high temperature resistance; excellent moisture and weather resistance.	20 min	1,9 MPa	290 ml cartridge 400 ml sausage
Körapop 223	Low modulus; good sealing properties; high temperature resistance; excellent moisture and weather resistance.	25 min	0,8 MPa	310 ml cartridge 600 ml sausage
Körapop 235	Elastic moisture curing; high cold and heat resistance; excellent moisture and weather resistance; available in black, white and grey.	10 min	3,1 MPa	310 ml cartridge 600 ml sausage
Körapop 257	Elastic moisture curing; high cold and heat resistance; excellent moisture and weather resistance; plasticizer free. White colour.	10 min	2,1 MPa	310 ml cartridge
Körapop 216	Silane-modified polymer sprayable sealant, lightly thixotropic, over paintable for 5 days, for seam sealing, welding lines and joints in general.	25 min	1,6 Mpa	310 ml cartridge 25 kg pail 270 kg drum
Körapop 228	Low viscosity, self leveling, good resistance to temperature and weathering.	40 min	2,2 Mpa	310 ml cartridge 600 ml sausage 25 kg pail 270 kg drum
Körapop 315	Silane-modified polymer adhesive and sealant, good resistance to humidity, weathering and temperatures.	35 min	1,8 Mpa	310 ml cartridge 400 ml sausage 600 ml sausage
Körapop 316	Silane-modified polymer adhesive and sealant, good resistance to humidity, weathering and temperatures, high green strength, good spraying behavior.	20 min	2,3 Mpa	310 ml cartridge
Körapop 337	Silane-modified polymer adhesive and sealant, high cold resistance, high heat resistance, excellent moisture resistance, excellent weather resistance.	18 min	2,9 Mpa	310 ml cartridge 600 ml sausage
Köracur 310 N	Booster paste for MS & STP for 10'/20' pot life (depending on the chosen adhesive)	-	-	28 kg pail 270 kg drum
Köracur 310 L	Booster paste for MS & STP for 16'/40' pot life (depending on the chosen adhesive)	-	-	28 kg pail 270 kg drum
Köracur 310 SL	Booster paste for MS & STP for 23'/60' pot life (depending on the chosen adhesive)	-	-	28 kg pail

# Compressors



# Gas Meter Manufacturing



## Recommended Solutions

Product	Application	Key Properties	Key Benefits
Vibra-TITE SH 27	Interior Thread Sealing	Anaerobic sealant in gel form for gas fittings; DVGW certified for gas according to DIN EN 751-1. Disassemblable with hand tools.	Reliable and certified thread sealing for gas fittings, allowing easy disassembly.
Vibra-TITE TT 69	Interior Thread Sealing	High-strength anaerobic sealant for gas fittings where disassembly is not required.	Provides leak-proof and secure sealing for high-pressure applications.
Körapur 030	Case Sealing and Internal Gasketing	Elastic polyurethane with excellent elongation at break, label-free according to GHS, and good over-paintability.	Ensures flexible, durable, and paintable sealing for gas meter cases.
Körapur 140	Case Sealing and Internal Gasketing	Polyurethane adhesive with high initial tack and higher strength.	Ideal for applications requiring strong adhesion and immediate bonding strength.

# Elastic Bonding and Sealing - 2K MS/STP

APPLICATION

Elastic Bonding and Sealing

TECHNOLOGY

2K MS/STP

REQUIREMENTS

Large gap filling

Fast curing

PRODUCT

Körapop 225/2K

Körapop 240/2K

CHARACTERISTICS

Multipurpose with a booster

High temperature resistance

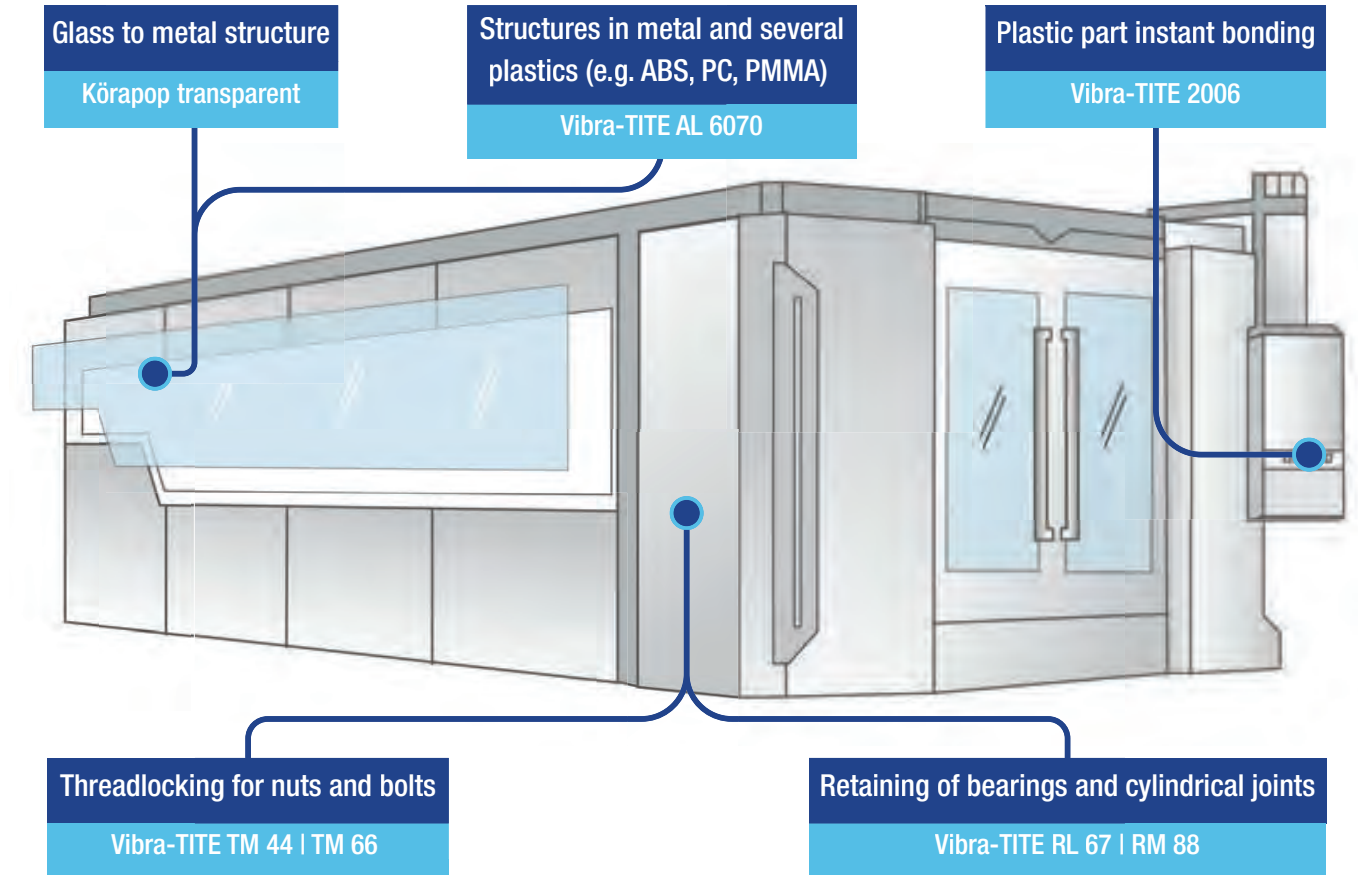


# 2K MS/STP Adhesives Technical Data

## Product Range

Product	Key Properties	Pot Life	Tensile Strength	Packaging
Körapop 225/2K	Multipurpose with a booster, different working times available; excellent moisture and weather resistance.	20 min, 40 min, 60 min	2,6 MPa	220 ml tandem cartridge 490 ml tandem cartridge
Körapop 240/2K	High cold and heat resistance; excellent moisture and weather resistance; cures also as 1K adhesive with humidity. Available in black, white and grey.	10 min, 16 min, 26 min	2,8 MPa	220 ml tandem cartridge 490 ml tandem cartridge
Körapop 225 2L	2-part silane-modified polymer adhesive and sealant, high cold resistance, excellent moisture resistance, excellent weather resistance.	40 min	2,6 Mpa	220 ml tandem cartridge 490 ml tandem cartridge
Körapop 225 2SL	2-part silane-modified polymer adhesive and sealant, high cold resistance, excellent moisture resistance, excellent weather resistance.	60 min	2,6 Mpa	490 ml tandem cartridge
Körapop 256 2K	2-part silane-modified polymer adhesive and sealant, high cold resistance, high heat resistance, excellent moisture resistance, excellent weather resistance, plasticizer free.	20 min	1,9 Mpa	490 ml tandem cartridge
Köracur 310 N	Booster paste for MS & STP for 10'/20' pot life (depending on the chosen adhesive)	-	-	28 kg pail 270 kg drum
Köracur 310 L	Booster paste for MS & STP for 16'/40' pot life (depending on the chosen adhesive)	-	-	28 kg pail 270 kg drum
Köracur 310 SL	Booster paste for MS & STP for 23'/60' pot life (depending on the chosen adhesive)	-	-	28 kg pail

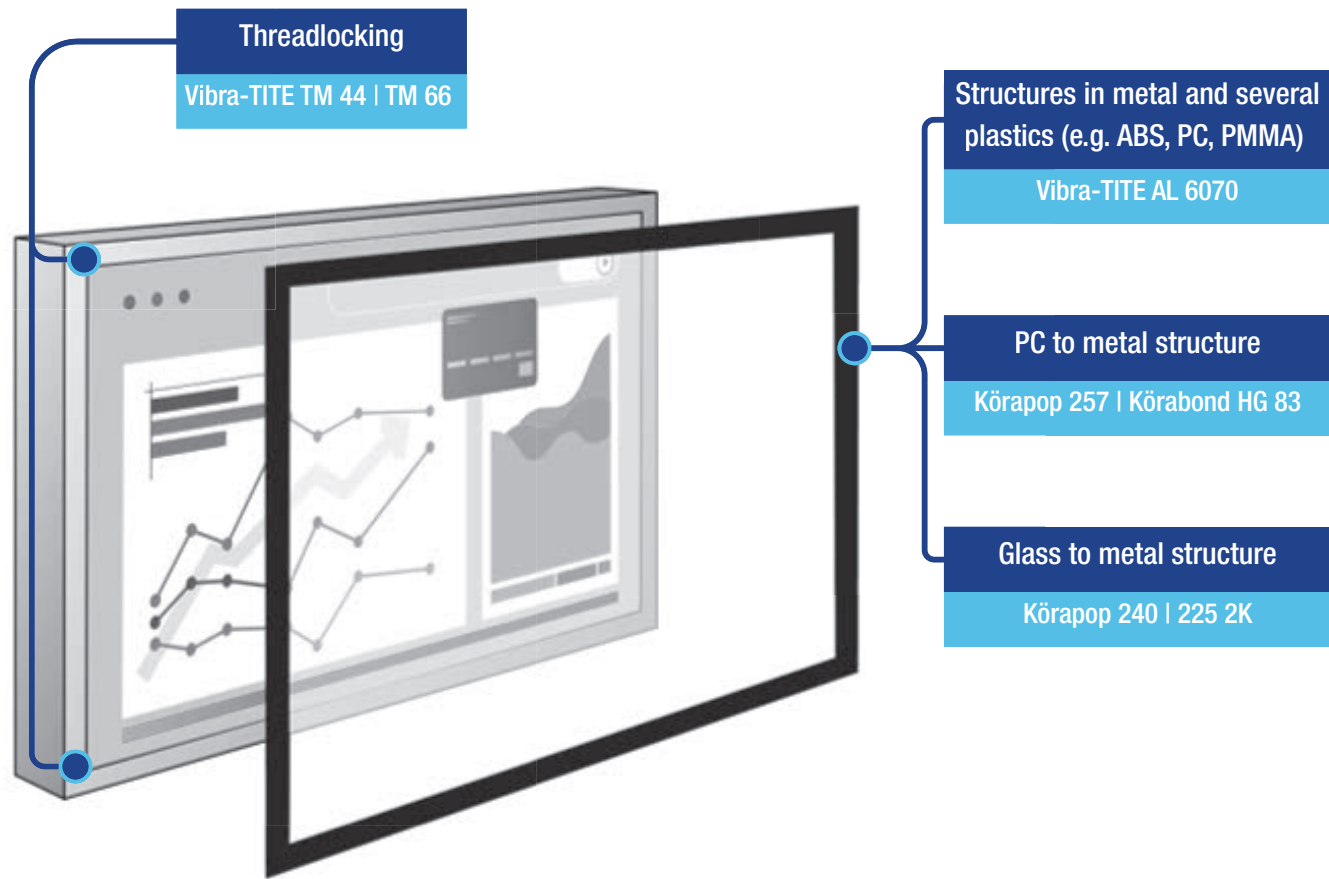
# Machine Tools



## Recommended Solutions

Product	Application	Key Properties	Key Benefits
Körapop Transparent	Glass to Metal Structure	Multipurpose elastic adhesive sealant with good mechanical properties and excellent weather resistance.	Provides durable bonding with weatherproof properties for glass-to-metal structures.
Vibra-TITE AL 6070	Structures in Metal and Several Plastics	Transparent 2-component structural methacrylate adhesive with 3-5' fixture time.	Quick fixture time, suitable for ABS, PC, and PMMA plastics with high bonding strength.
Vibra-TITE TM 44	Threadlocking for Nuts and Bolts	Medium-strength, thixotropic anaerobic threadlocker for removable joints.	Prevents loosening and allows maintenance operations.
Vibra-TITE TM 66	Threadlocking for Nuts and Bolts	High strength threadlocker for non-maintenance applications.	Ensures reliable locking in high-stress environments.
Vibra-TITE RL 67 / Vibra-TITE RM 88	Retaining of Bearings and Cylindrical Joints	Low- and medium-viscosity retaining compounds for cylindrical parts such as bearings, shafts, bushes, rotors, and studs.	Provides secure retention for cylindrical parts, preventing spin and wear.
Vibra-TITE 2006	Plastic Part Instant Bonding	Suitable for rapid bonding of a wide range of plastics and elastomers.	Fast-curing adhesive ideal for quick assembly processes.

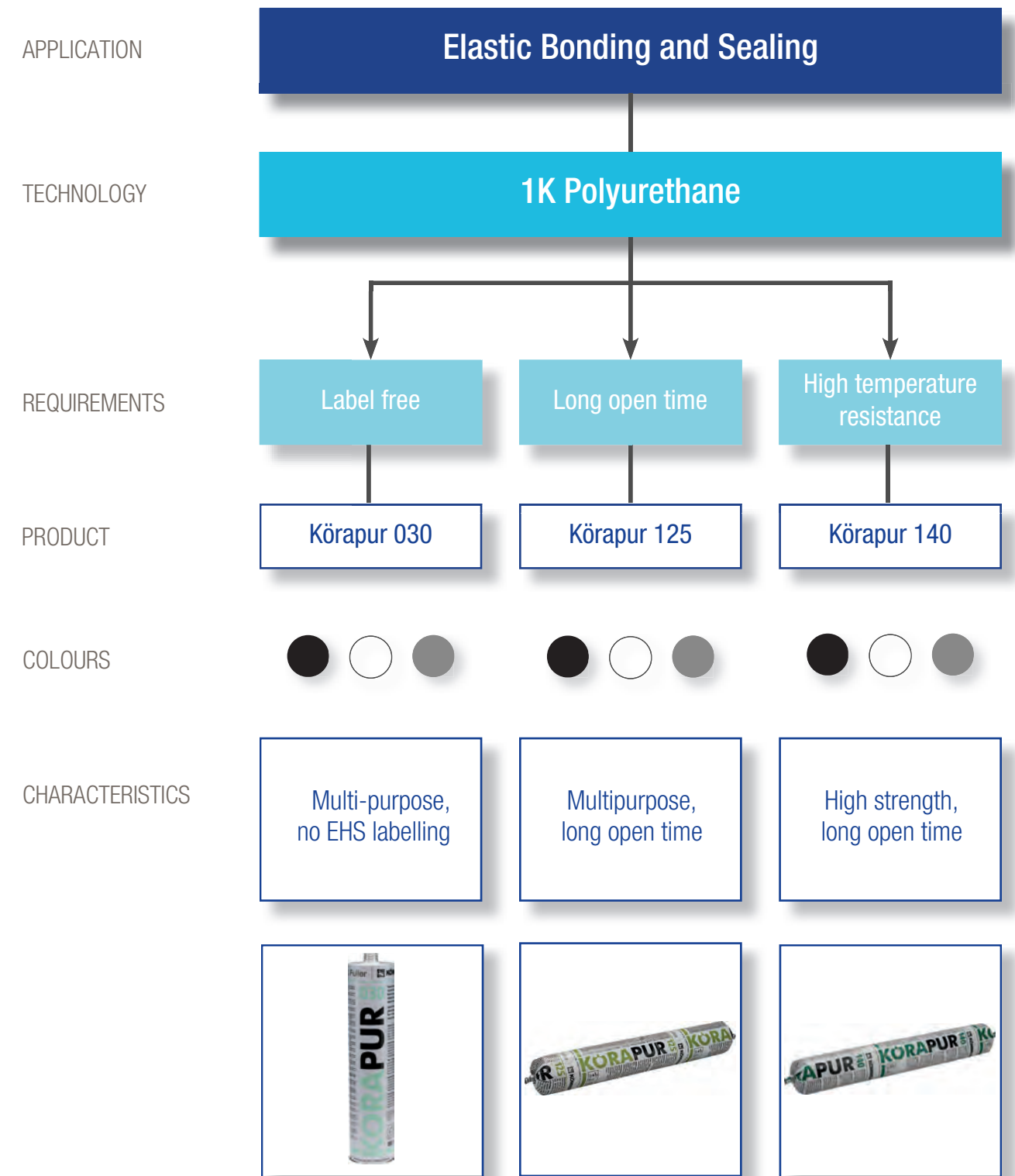
# Display Panels



## Recommended Solutions

Product	Application	Key Properties	Key Benefits
Körapop 240	Glass to Metal Structure	Multipurpose MS adhesive with high mechanical properties and weather resistance. Available in white, grey, and black.	Ensures durable bonding with excellent weather resistance for outdoor applications.
Körapop 225 2K	Glass to Metal Structure	2-component MS adhesive with good gap-filling properties and faster curing.	Ideal for glass-to-metal bonding requiring high strength and faster curing.
Körapop 257	PC to Metal Structure	Plasticizer-free elastic adhesive.	Provides strong bonding for polycarbonate to metal.
Körabond HG 83	PC to Metal Structure	Adhesion promoter and cleaning activator for non-absorbing substrates.	Enhances bonding performance when used with Körapop adhesives.
Vibra-TITE AL 6070	Metal and Various Plastics	2-component structural MMA adhesive with 3-5' fixture time.	Quick fixture time, suitable for ABS, PC, and PMMA plastics with strong bonding.
Vibra-TITE TM 44	Threadlocking	Medium-strength, thixotropic anaerobic threadlocker for removable joints.	Prevents loosening and allows maintenance operations.
Vibra-TITE TM 66	Threadlocking	High strength threadlocker for non-maintenance applications.	Ensures reliable locking in high-stress environments.

# Elastic Bonding and Sealing - 1K Polyurethane Adhesives



# 1K Polyurethane Adhesives Technical Data

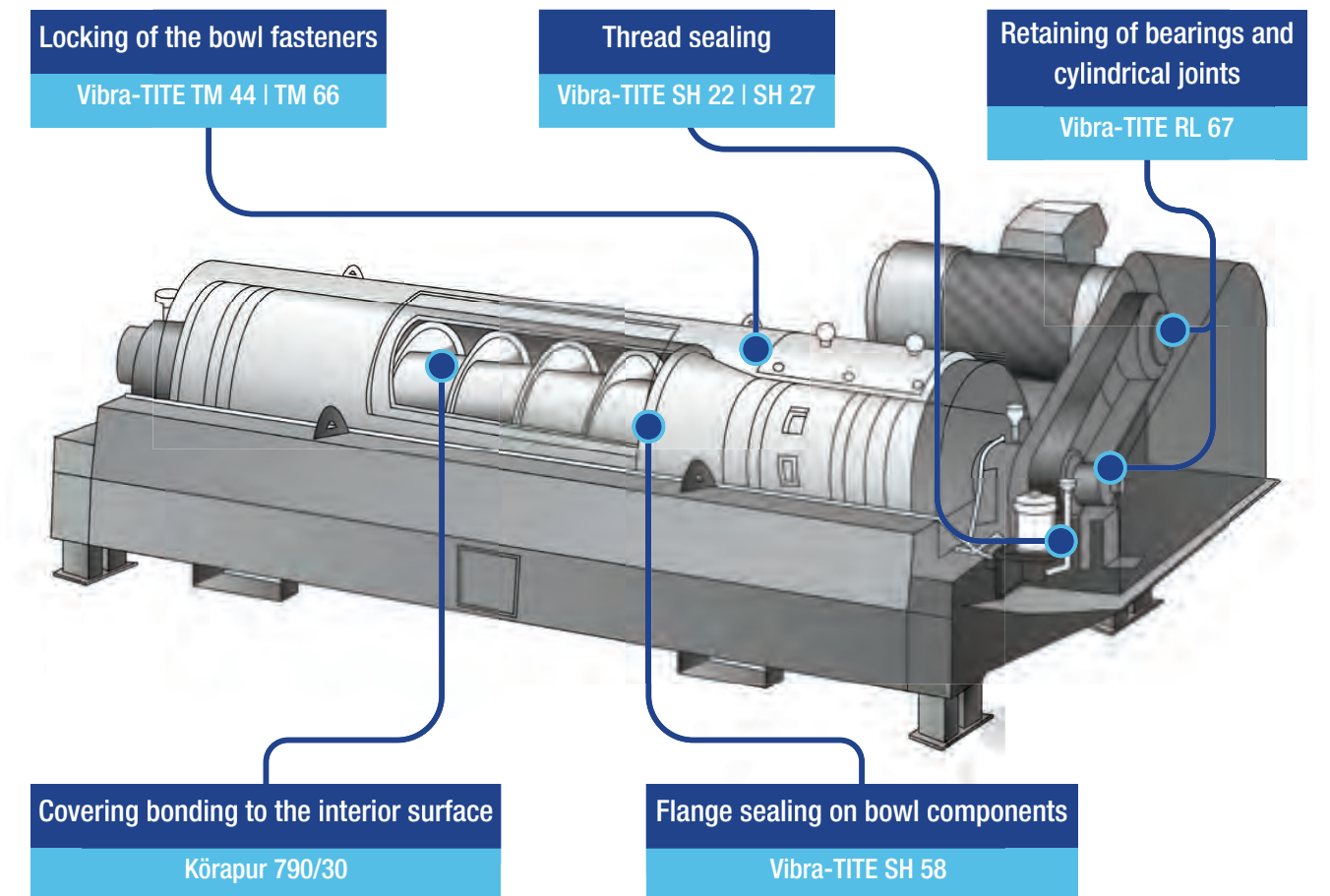
## Go-To-Products

Product	Key Properties	Skin Formation Time	Tensile Strength	Packaging
Körapur 030	Universal adhesive and sealant with excellent elongation at break and moisture resistance; label free according to GHS; good overpaintability. Available in white, grey and black.	45 min	2,9 MPa	300 ml cartridge 600 ml sausage
Körapur 125	Universal adhesive and sealant; high cold and heat resistance; excellent moisture and weather resistance. Available in white, grey and black.	45 min	2,0 MPa	310 ml cartridge 600 ml sausage 23 kg pail 230 kg drum
Körapur 140	High strength elastic adhesive; long open time. Available in white, grey and black.	45 min	4,0 MPa	310 ml cartridge 600 ml sausage 23 kg pail 230 kg drum

## More Products

Product	Key Properties	Skin Formation Time	Tensile Strength	Packaging
Körapur 115	Multipurpose elastic adhesive with high cold and heat resistance; excellent moisture and weather resistance.	45 min	1,4 MPa	300 ml cartridge 570 ml sausage
Körapur 128 S	Self-levelling adhesive with high cold and heat resistance; excellent moisture and weather resistance.	30 min	1,5 MPa	600 ml sausage 230 kg drum
Körapur 116	Multipurpose elastic adhesive with high elasticity and good mechanical properties.	40 min	2,5 MPa	300 ml cartridge 600 ml sausage

# Centrifuge Manufacturing



## Recommended Solutions

Product	Application	Key Properties	Key Benefits
Vibra-TITE TM 44	Locking of Bowl Fasteners	Medium-strength threadlocker, thixotropic. Removable with standard tools.	Prevents loosening and corrosion of fasteners.
Vibra-TITE TM 66	Locking of Bowl Fasteners	High strength threadlocker for stainless steel and plated fasteners.	Ensures strong fastening and resists vibration.
Vibra-TITE RL 67	Retaining Bearings and Cylindrical Joints	Low-viscosity anaerobic retaining adhesive for cylindrical parts.	Prevents bearing movement, spin, and fretting under stress.
Vibra-TITE SH 22 / Vibra-TITE SH 27	Thread Sealing	Thread sealants for lubrication system pipes.	Reliable sealing under pressure, resists chemical exposure.
Vibra-TITE SH 58	Flange Sealing on Bowl Components	High-viscosity flange sealant, removable with standard tools.	Ensures tight seals for easy maintenance.
Körapur 790/30	Cover Bonding to Interior Surface	2-part PU adhesive for highly structural joints.	Provides durable bonding for structural applications.

# Gearbox Manufacturing/Repair

## Recommended Solutions

Product	Application	Key Properties	Key Benefits
Vibra-TITE RL 67	Retaining of Bearings on the Shaft	Low-viscosity anaerobic retaining adhesive.	Prevents bearing spin and fretting under mechanical stress.
Ködisil N / Ködisil HAC-O	Gasketing	Silicone sealants for flexible covers and covers with large bolt spacing.	Provides flexibility and excellent sealing properties.
Vibra-TITE SH 58	Gasketing	High-viscosity sealant for rigid flanges.	Ensures leak-proof seals for maintenance-friendly disassembly.
Vibra-TITE RM 88 / ERM 88	Gear Retaining	Anaerobic retainer prevents gear and pinion movement. ERM 88 is GHS label-free.	Prevents gear movement, ensures alignment, and resists torque.
Vibra-TITE TM 66 / Vibra-TITE ETM 66	Mounting Bolts Locking	High strength threadlocker prevents loosening. ETM 66 is GHS label-free.	Locks bolts securely, resistant to vibration and harsh conditions.
Vibra-TITE TM 44	Keyway Wear Prevention	Thixotropic anaerobic threadlocker, removable with standard tools.	Prevents wear and loosening, supports easy maintenance.
Vibra-TITE SH 22 / Vibra-TITE ESH 22	Threaded Fitting Sealing	High-viscosity thread sealant locks fittings at any angle. ESH 22 is GHS label-free.	Excellent thread sealing for high-pressure environments, chemical resistance.
Vibra-TITE TM 44 / Vibra-TITE ETM 44	Threadlocking	Medium-strength threadlocker prevents corrosion, seizure, and loosening.	Reliable for bolt fastening.

# Elastic Bonding and Sealing - Silicone Adhesives

APPLICATION

Elastic Bonding and Sealing

TECHNOLOGY

Silicone

REQUIREMENTS

High temperature fungicide sealing

Very high temperature sealing

Chemical and temperature resistance

PRODUCT

Ködisil N

Köditec 114

Ködisil HAC-A

COLOURS



CHARACTERISTICS

Neutral curing, fungicide and MEKO free

High heat resistance and high mechanical strength

Good resistance to humidity, weathering and temperatures



\* transparent

# Silicone Adhesives Technical Data

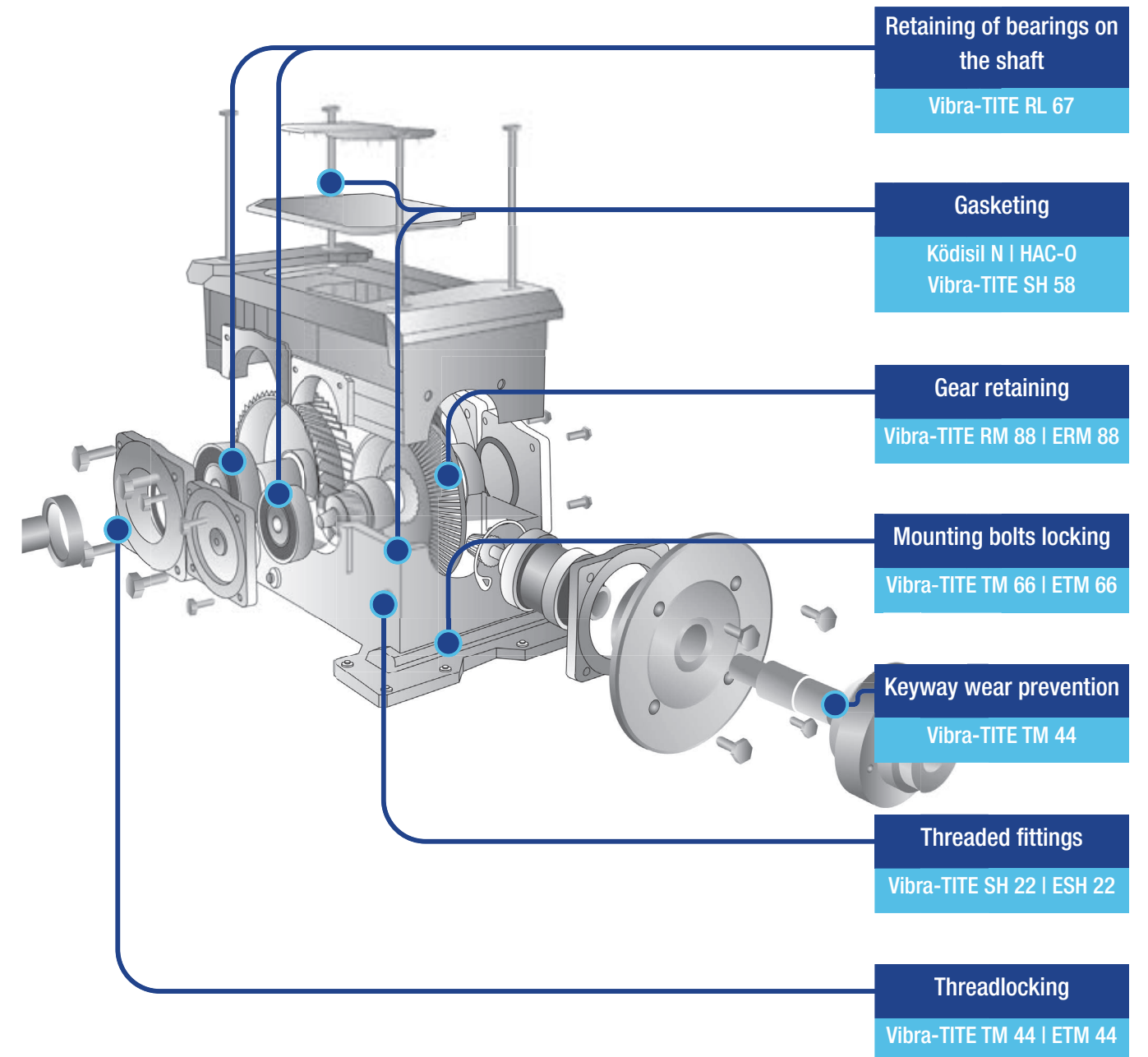
## Go-To-Products

Product	Key Properties	Skin Formation Time	Tensile Strength	Packaging
Ködisil N	Neutral curing multipurpose silicone sealant; fungicide and MEKO-free. Available in white and transparent.	5 min	0,6 MPa	310 ml cartridge
Köditec 114	High heat resistance (-40 °C to +250 °C, +350 °C for 60 minutes); high mechanical strength; excellent resistance to motor oil and cooling liquid. Anthracite colour.	5 min	2,6 MPa	310 ml cartridge
Ködisil HAC-A	Good resistance to humidity, weathering, temperatures and chemicals. Either prevents from fungal attack on a long-term basis or delay its occurrence considerably. Transparent.	10 min	1,8 MPa	310 ml cartridge

## More Products

Product	Key Properties	Skin Formation Time	Tensile Strength	Packaging
Ködisil 110T	Moisture curing transparent silicone sealant; excellent UV stability and excellent weather resistance. Transparent.	8 min	1,1 MPa	310 ml cartridge 400 ml sausage
Köditec 174	Neutral curing, MEKO-free multipurpose silicone sealant. Good adhesion to a variety of substrates. Available in black and transparent. Good heat resistance (-40 °C to +180 °C for black color, -40°C to +200°C for transparent, +250 °C for short term).	6 min	0,56 MPa	200 ml automatic cartridge

# Gearbox Manufacturing/Repair



# Pump Manufacturing/Repair

## Recommended Solutions

Product	Application	Key Properties	Key Benefits
Vibra-TITE TM 11	Preventing Set Screws from Working Loose	Low strength anaerobic threadlocker.	Ideal for low-strength, easy-to-disassemble applications.
Vibra-TITE TM 44 / Vibra-TITE ETM 44	Secure and Prevent Leakage Between Oil Seals	Medium-strength threadlocker, removable with standard tools. ETM 44 is a GHS label-free option.	Prevents leakage and loosening, easy maintenance.
Vibra-TITE SH 58	Gasketing on Flanges	High-viscosity flange sealant, removable with standard tools.	Ensures leak-proof seals, flexible under pressure.
Vibra-TITE TM 44	Keyway Wear Prevention	Thixotropic anaerobic threadlocker, removable with standard tools.	Prevents wear and loosening, extends component life.
Vibra-TITE RL 67	Retaining Bearings on the Shaft	Low-viscosity anaerobic adhesive, high strength.	Provides strong retention for bearings under mechanical stress.
Vibra-TITE TM 44 / Vibra-TITE ETM 44	Secure Casing Bolts and Adapter Bolts	Medium-strength threadlocker, removable with standard tools. ETM 44 is a GHS label-free option.	Reliable fastening for bolts, removable for maintenance.
Vibra-TITE SH 27 / Vibra-TITE ESH 22	Threaded Fitting Sealing	High-viscosity thread sealant. ESH 22 is a GHS label-free alternative.	Excellent thread sealing for high-pressure environments, chemical resistance.
Vibra-TITE TM 66 / Vibra-TITE ETM 66	Mounting Bolts Locking	High strength threadlocker. ETM 66 is a GHS label-free alternative.	Locks bolts securely, resistant to vibration and harsh conditions.

# Elastic Bonding and Sealing - Butyl Adhesives

APPLICATION

Elastic Bonding and Sealing

TECHNOLOGY

Butyl

REQUIREMENTS

Maximum gas impermeability

PRODUCT

Ködiplast CT 100

COLOURS



CHARACTERISTICS

Excellent gas impermeability and weather resistance



# Butyl Adhesives Technical Data

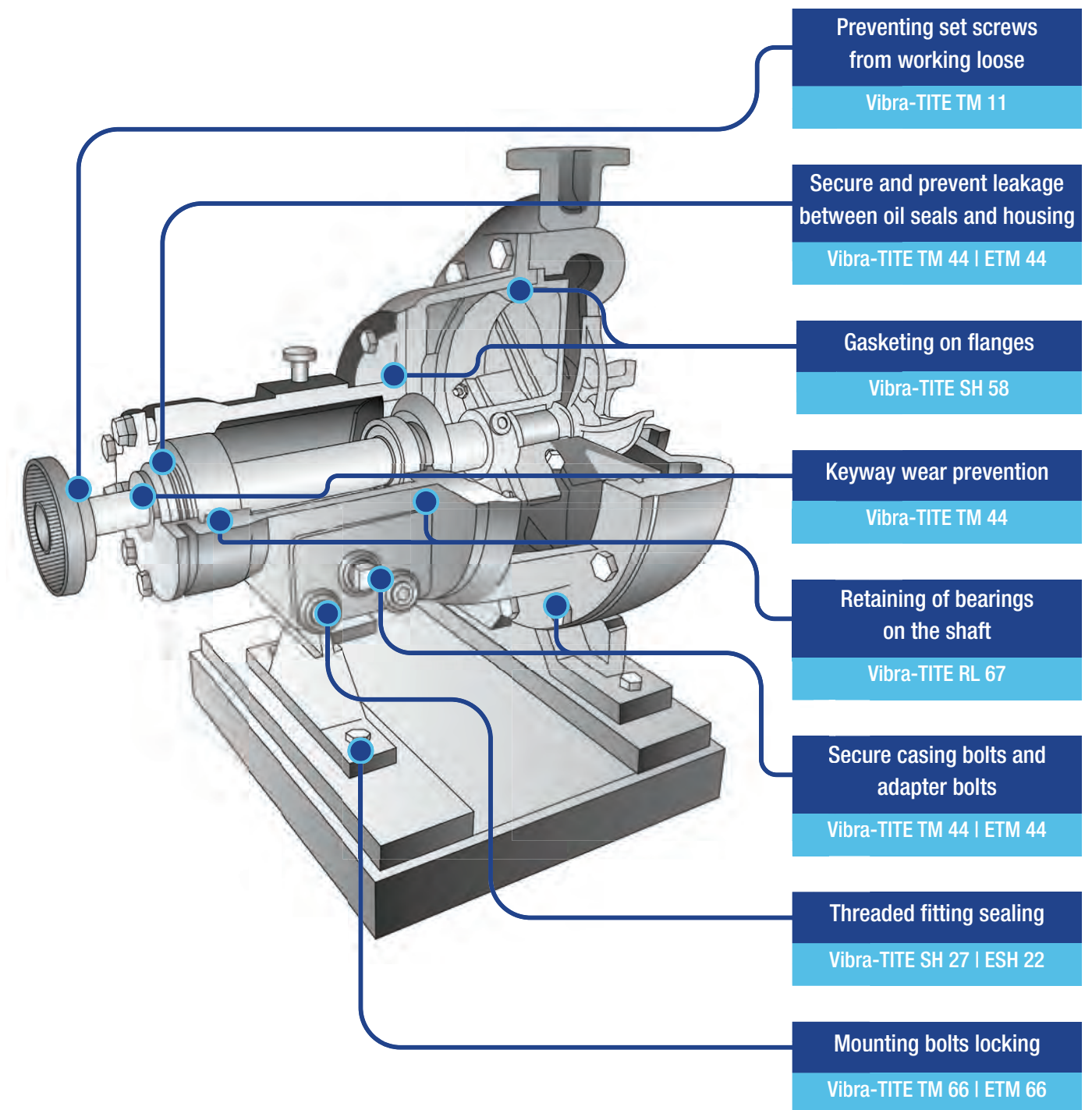
## Go-To-Products

Product	Key Properties	Skin Formation Time	Packaging
Ködiplast CT 100	Non-reactive removable sealant with excellent gas impermeability and weather resistance. Available in black and grey.	3 min	310 ml cartridge 570 ml sausage

## More Products

Product	Key Properties	Service Temperature	Packaging
Ködiplast CS	Excellent weather resistance; water vapour tight; grey colour.	-30 to +80 °C	600 ml sausage
Ködiplast HV 578-59	Thermoplastic sealant with very good adhesion; black colour.	-30 to +80 °C	310 ml cartridge 20 kg pail Tape

# Pump Manufacturing/Repair



# Elevator Manufacturing

## Recommended Solutions

Product	Application	Key Properties	Key Benefits
Vibra-TITE TM 44 / Vibra-TITE TM 66	Threadlocking and Retaining on Door Mechanical Parts	Medium and high strength threadlockers for mechanical parts.	Prevents loosening and corrosion in mechanical parts.
Vibra-TITE RL 67 / Vibra-TITE RM 88	Retaining Cylindrical Parts	Low and medium viscosity retainers.	Retains cylindrical parts securely under stress.
Körapur 030	Decorative Panel Bonding	Elastic PU with high elasticity and excellent mechanical properties.	Durable bonds for decorative panels, with flexibility for long-term performance.
Körapop 240 / Körapop 330	Decorative Panel Bonding	Fire-resistant MS (Körapop 240) and high initial grab adhesive (Körapop 330).	High fire resistance (Körapop 240) and quick handling (Körapop 330).
Vibra-TITE AL 6070	Display and Mirror Bonding	Low odor MMA multipurpose adhesive.	Versatile adhesive with strong bonding capabilities and low odor.
Ködisil N	Mirror Bonding	Neutral curing silicone sealant, MEKO-free.	Provides high bonding strength while being environmentally safe.
Körapop 220 / Körapur 030 / Körapren FU 36	Floor and Roof Bonding	Multipurpose MS, high elasticity PU, and solvent-based adhesives.	Versatile solutions for different bonding needs in flooring and roofing.
Körapop 215	Sound Damping	Sprayable MS with good resistance to humidity and excellent weather resistance.	Ideal for noise reduction and environmental durability.

## UV Curing Adhesives - Overview

Reference	Product Profile	Viscosity (1)	Fluorescence	Shell Life (2)	Polycarbonate	Polycarbonate to Aluminium	Glass	Glass to Steel	Fixture Time (3)	Hardness Shore D	Appearance	Tack-free Surface
U 3075	UV adhesive for plastic and glass/metal bonding, low viscosity	70-120 (160 s-1)	No	12	6-10 Material failure	7-10 Material failure	Material failure	10-13	< 3	70-80	Clear	No
U 3150	Flexible UV adhesive for plastic, glass and glass/metal bonding	200-400 (160 s-1)	No	12	5-7	5-6	10-13	9-12	< 5	50-60	Clear	No
U 3200	UV adhesive for plastic, glass and glass/metal bonding	800-2,000 (160 s-1)	No	12	4-5	5-6	8-11	8-10	< 2	75-85	Clear	Yes
U 3300	Thixotropic UV adhesive for plastic, glass and glass/metal bonding	1,000-2,500 (160 s-1)	No	6	3-4	4-5	6-10	7-9	< 2	75-85	Clear	Yes
U 3307	Blue coloured thixotropic UV adhesive for plastic, glass and glass/metal bonding	1,000-2,500 (160 s-1)	No	6	3-4	4-5	6-10	7-9	< 2	75-85	Blue	Yes
U 3381	Thixotropic UV curing adhesive for plastics and glass/metal bonding	1,000-2,500 (160 s-1)	No	6	5-7 Material failure	5-8	Material failure	8-14 Material failure	< 3	60-70	Clear	Yes
U 3600	Thixotropic UV adhesive for plastic, glass and glass/metal bonding	10,000-80,000 (2 s-1) / 1,500-3,500 (160 s-1)	No	6	3-4	6-7	6-13	6-13	< 2	75-85	Clear	Yes
U 3610	Fluorescent thixotropic UV adhesive for plastic, glass and glass/metal bonding	20,000-80,000 (2 s-1) / 2,000-3,500 (160 s-1)	Yes	6	3-4	6-7	6-13	6-13	< 2	75-85	Clear	Yes
U 3631	Flexible UV curable adhesive gel for plastic and glass/metal bonding, fluorescent	30,000-80,000 (2 s-1) / 3,000-800 (160 s-1)	Yes	6	2-4	3,64-3,98	2,20-3,51	4-6	< 3	35-45	Clear	Yes

### Grades for Medical Applications, ISO 10993-5 tested

U 305	UV adhesive for plastic to plastic, and plastic to metal bonding in medical applications	600-1,200 (160 s-1)	No	12	2-4	3-4	10-12	6-8	< 8	50-60	Clear	No
U 314	High viscous UV curing adhesive for bonding various substrates as plastics, glass and metals. Needle bonding	5,000-10,000 (160 s-1)	No	12	2-4	4-6	4-7	9-12	< 2	65-75	Clear	Yes
MU 320	Thixotropic UV adhesive for plastic, glass and glass/metal bonding in medical applications	20,000-80,000 (2 s-1) / 2,000-3,500 (160 s-1)	No	6	3-4	6-7	6-13	6-13	< 2	75-85	Clear	Yes

# Lamination

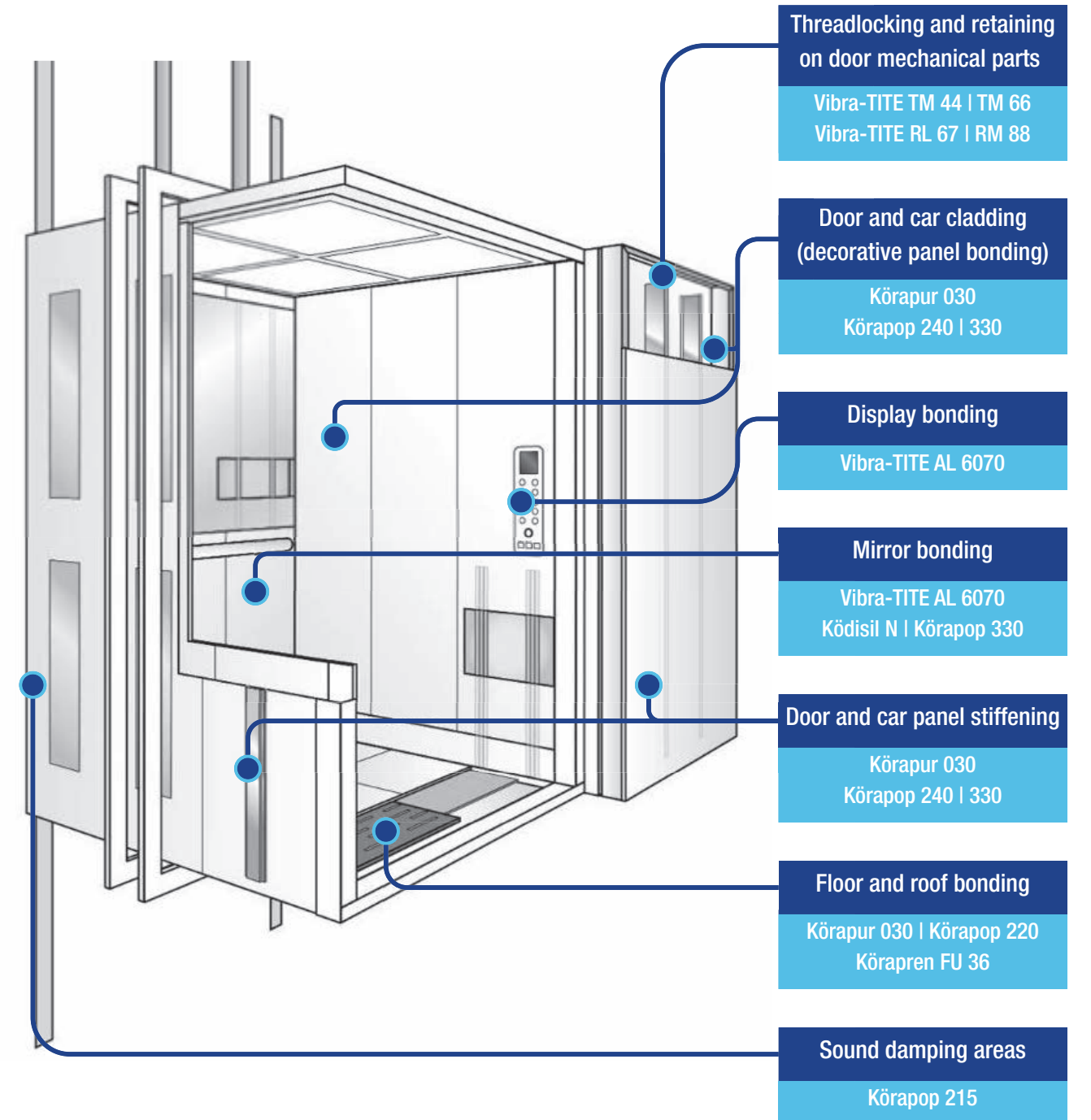
Large surfaces allow maximum load distribution and thus protect the materials under load. These assemblies are common in appliances, furniture and construction. They often require full surface attachment, a flexible bond, fast bonding with little or no fixturing and the ability to position parts.

## TECHNOLOGIES

### Lamination

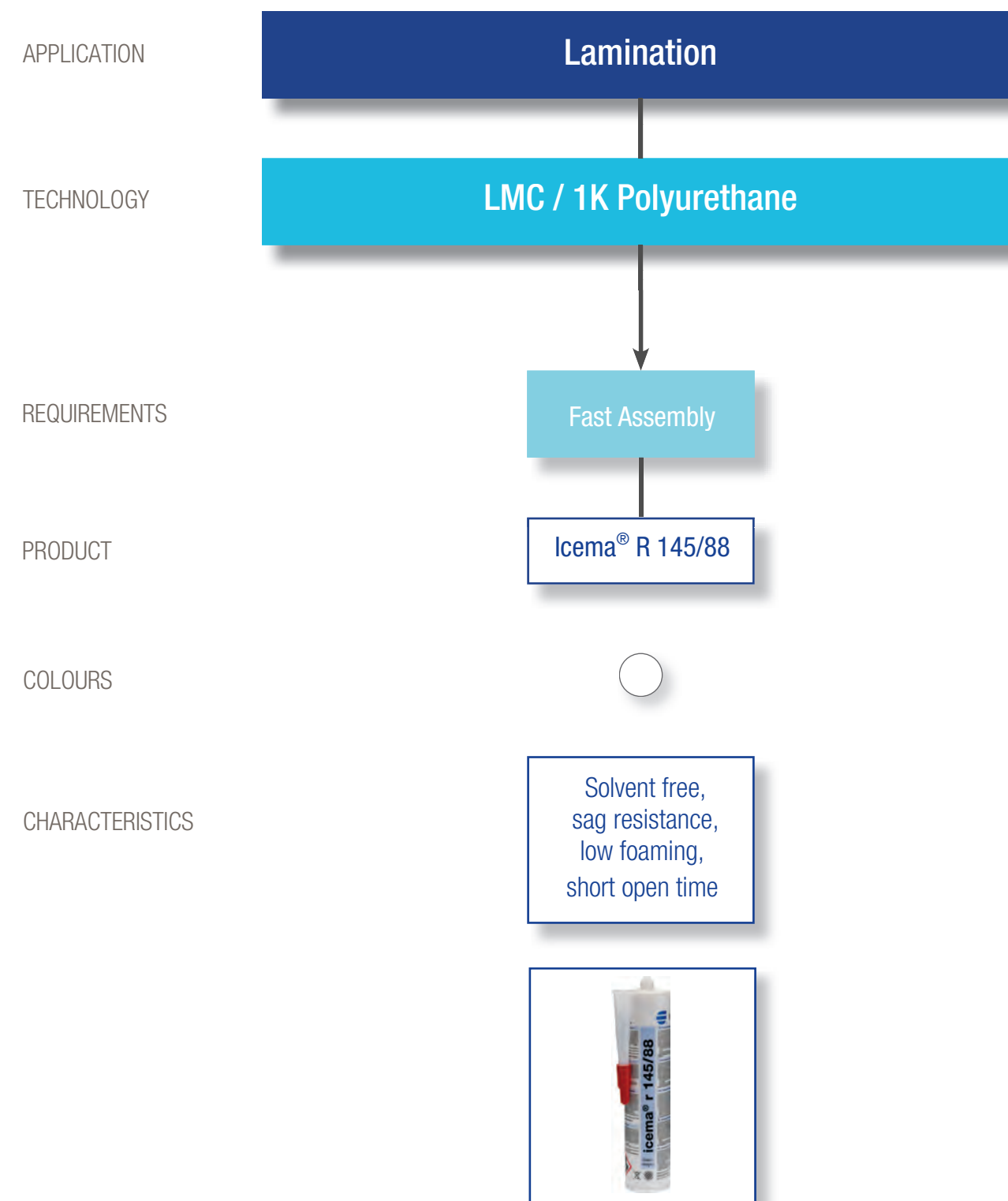
<p><b>LMC / 1K Polyurethane</b></p>	<p>Polyurethane-based 1K reaction adhesives that will harden at room temperature for bonding and sealing a great variety of materials such as wood-based materials, GFRP, untreated, primed and painted or anodized metals, as well as many plastics.</p> <p>1K PUR products react with moisture to form elastic adhesives and sealants that are in particular applied where different thermal length expansions require permanent compensation.</p>
<p><b>Hot Melt</b></p>	<p>Fast adhesive solution with immediate position tack. Hotmelt adhesives are 100 % solid materials based on different polymers: they do not contain water or solvents and simply melt with heat. Hotmelt adhesives are applied in their liquid state (melted) onto a surface. When the two surfaces to be bonded are pressed together, the heat accumulated in the adhesive disappears quickly and the adhesive solidifies, resulting in an almost instant bond. Hotmelts are differentiated into thermoplastic and reactive hotmelts.</p> <p>Thermoplastic hotmelts are non-reactive adhesives that become liquid at high temperatures to make it easy to apply and stick parts together quickly. Reactive hotmelt products are more resistant to high temperatures and, therefore, more durable. The working principle of reactive hotmelt is similar to the thermoplastic hotmelt, as it is also applied once it has been heated and melted but it uses an additional chemical reaction with moisture to build a strong connection that cannot be opened again once it is cross-linked.</p>
<p><b>Solvent Based</b></p>	<p>Solvent-containing, polychloroprene- or polyurethane-based adhesives that will harden at room temperature for gluing a great variety of different materials such as wood-based materials, steel, aluminium, textiles, plastics like PVC, leather or foams.</p> <p>Solvent-based adhesives offer good wetting properties and can be easily applied with many different methods. The evaporation of the solvents helps to achieve fast initial strengths.</p>
<p><b>Water Based</b></p>	<p>Water-based adhesives based on various polymer systems for gluing a great variety of different materials such as wood-based materials, steel, aluminium, textiles, plastics like PVC, leather or foams.</p> <p>In comparison to solvent-based adhesives, dispersion adhesives are distinguished by a longer wet life. An aspect that is highly beneficial for gluing large areas.</p>

# Elevator Manufacturing



# Engineering Adhesives Application Overview

## Lamination - LMC/1K Polyurethane Adhesives



# LMC/1K Polyurethane Adhesives Technical Data

## Go-To-Products

Product	Key Properties	Viscosity	Open Time	Density	Consumption	Packaging
Icema® R 145/88	Suitable for a broad range of substrates, sag resistant, low foaming, short open time.	140.000 mPas	5 min	1,50 g/cm <sup>3</sup>	150-300 g/m <sup>2</sup>	310 ml cartridge 25 kg pail 220 kg drum
Icema® R 145/44	Suitable for a broad range of substrates, sag resistant, low foaming, medium open time.	140.000 mPas	15 min	1,50 g/cm <sup>3</sup>	150-300 g/m <sup>2</sup>	310 ml cartridge 600 ml sausage 220 kg drum

## More Products

Product	Key Properties	Viscosity	Open Time	Density	Consumption	Packaging
Icema® R 145/31	Universal with high strength.	7.200 mPas	15 min*	1,1 g/cm <sup>3</sup>	100-200 g/m <sup>2**</sup>	1 l bottle
Körapur 280 f	Good stability/workability - non sag. High reactivity.	-	6 min	1.43 g/cm <sup>3</sup>	-	600 ml sausage

# Solvent Based Adhesives Technical Data

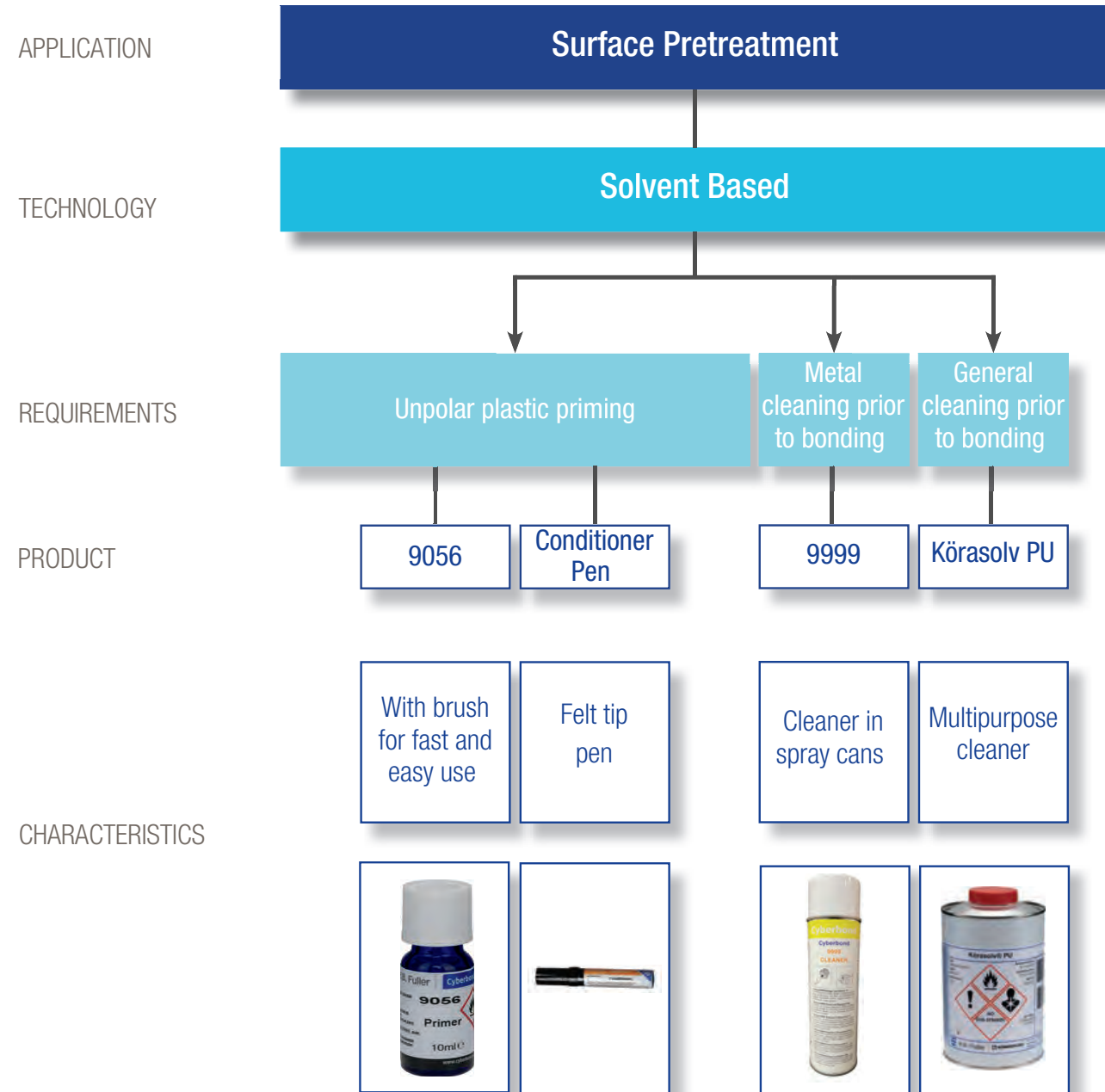
## Go-To-Products

Product	Key Properties	Packaging
9056	Primer to pretreat unpolar plastics such as Polyethylene (PE), Polypropylene (PP), Polyoxymethylene (POM), Silicone and thermoplastic Elastomers (TPE) prior to use instant adhesives.	500 ml bottle
Conditioner Pen		-
9999	Cleaner in spray cans to remove oil, grease and dirt from metal parts prior to the bonding application. Suitable also for brakes.	500 ml spray can
Körasolv PU	Multipurpose cleaner to be used prior to the bonding application. Toluene free.	1 l bottle 5 l can

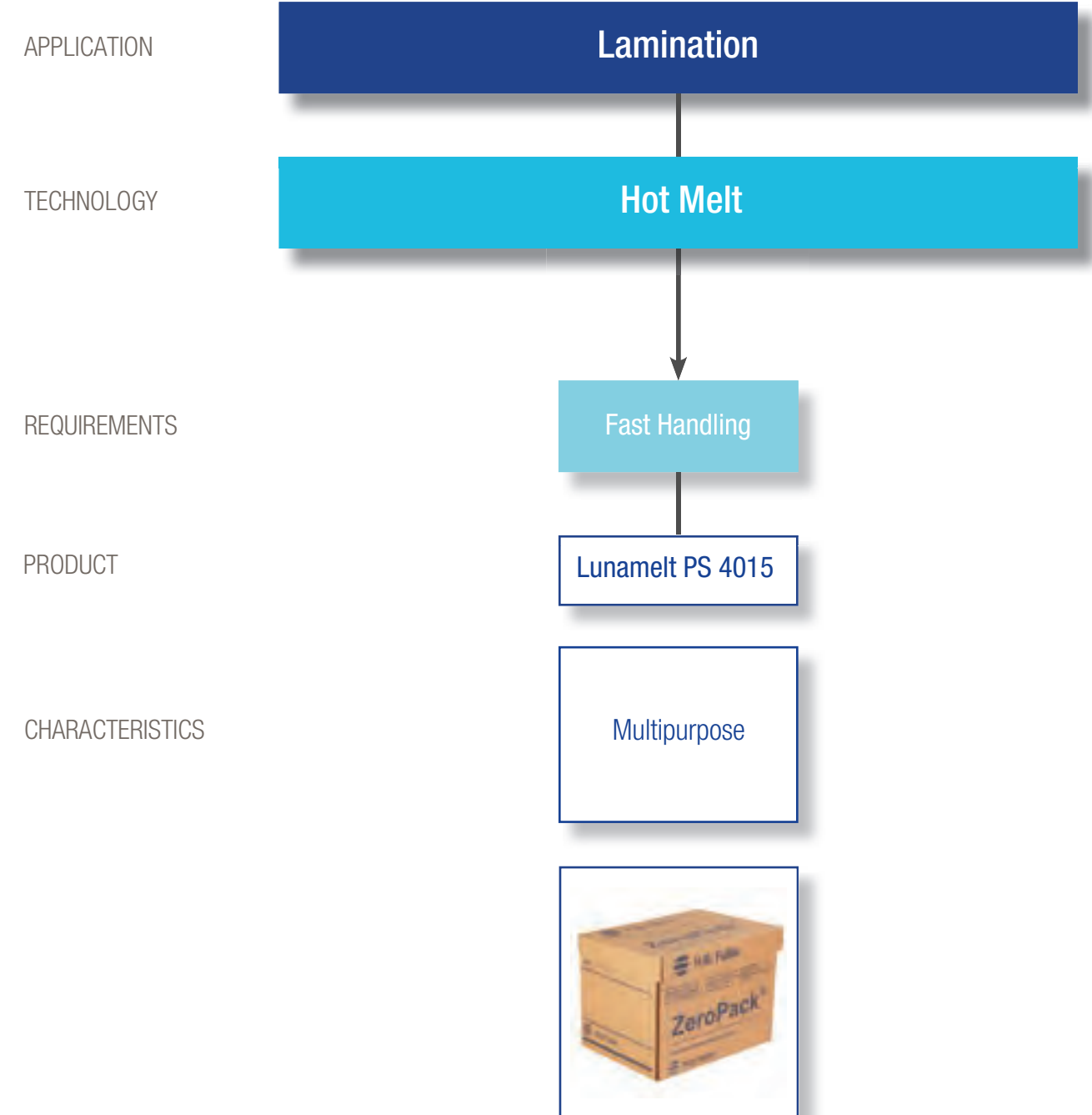
## More Products

Product	Key Properties	Packaging
Helmitin® 676/2	Mix for a good degreasing.	1 l bottle 4 kg can 9,5 kg Can
Helmitin® 688	Aliphatic based for a soft cleaning.	0,56 kg bottle 9 kg can
Helmitin® 694	Multipurpose cleaner and degreaser to be used prior to the bonding application. Suitable also for painted surfaces. Toluene free.	0,64 kg bottle 10 kg can
Körasolv GL	Mixture of organic solvents for the cleaning and degreasing of different plastic, metal and glass surfaces.	1 l bottle 5 l bottle
Körasolv WL	Multipurpose cleaner and degreaser to be used prior to the bonding application. Suitable also for painted surfaces. Toluene free.	1 l bottle 5 l bottle
Körabond PR 262	Cleaning activator for non absorbing substrates and difficult to bond plastics. Suitable for elastic Körapop sealants and adhesives.	4 kg can
Körabond HG 81	Cleaning activator, adhesion promoter for elastic Körapur sealants and adhesives. Fluorescent, for production control.	1 l bottle 5 l bottle
Körabond HG 83	Cleaning activator, adhesion promoter for Körapop sealants and adhesives. Fluorescent version available for production control.	1 l bottle 5 l bottle
9191	Activator for anaerobic adhesives.	500 ml
9090	Activator for instant adhesives.	200 ml spray
9096	Activator for instant adhesives.	200 ml spray
Körabond HG 73	Cleaning activator for non absorbing substrates	0,5 l bottle
Körabond HG 74 E	Primer for absorbant substrates like wood or concrete, subsequent bonding with Körapur or Körapop adhesive and sealant	1 l bottle
Körabond HG 77 Plus Blue	Primer for subsequent bonding with Körapur or Körapop adhesives, improving the adhesion of paints on cured Körapop.	1 l bottle
Körabond HG 92	Barrier-forming primer, fluorescent (for production control).	1 l bottle
Köratool AM 10	Tooling agent for smoothing and finishing elastic PU and STP.	1 l bottle

# Surface Pretreatment - Solvent Based Adhesives



# Lamination - Hot Melt Adhesives



# Hot Melt Adhesives Technical Data

## Go-To-Products

Product	Key Properties	Viscosity	Packaging
Swift <sup>®</sup> melt 1838	Hot melt pressure sensitive adhesive, clear film.	9.000 mPas at 175 °C	15 kg box
Lunamelt PS 4015	Hot melt pressure sensitive adhesive.	5.500 mPas at 175 °C	15 kg box
Swift <sup>®</sup> lock 2441	Reactive hot melt. Flexible use in various applications.	25.000mPas at 140 °C	320 ml cartridge 20 kg pail
Swift <sup>®</sup> lock 6811	Reactive hot melt. Low content of monomeric MDI (<0,1%), Bluesign <sup>®</sup> approved, good washing resistance, initial cohesion.	6.000 mPas at 120°C	20 kg carton pail
Swift <sup>®</sup> lock 6850	Reactive hot melt, Bluesign <sup>®</sup> approved.	12,500 mPas at 120°C	18 kg
Lunamelt PS 7900 Zero Pack	Hot melt pressure sensitive adhesive.	7.900 mPas at 150 °C	15 kg box
Lunamelt PS 7909	Hot melt pressure sensitive adhesive.	6.500-10.500 mPas at 150 °C	15 kg box
Swift <sup>®</sup> lock 6801	Reactive hot melt, Bluesign <sup>®</sup> approved.	3.000 mPas at 100°C	18 kg pail
Swift <sup>®</sup> lock 6272	Reactive hot melt. Excellent washing resistance.	22.500 mPas at 120 °C	200 kg drum
Swift <sup>®</sup> lock 6282	Reactive hot melt. Excellent washing resistance.	6.000 mPas at 120 °C	200 kg drum
Swift <sup>®</sup> lock 6864	Reactive hot melt. Very soft hand feel.	4.700 mPas at 120 °C	20 kg carton pail 200 kg drum
Swift <sup>®</sup> lock 2003	High final bonding strength and heat resistance. Excellent chemical resistance.	6.500 mPas at 177 °C	15 kg metal bucket (10 x 1,5 kg) 160 kg drum
Pressen 2574	Multipurpose, broad range of assembly applications, high tack for fast handling.	6.950 mPas at 160 °C	15 kg pillow tack box

# Surface Pretreatment

To ensure an optimal, durable and secure bond the proper surface preparation is key for success. Depending on the substrate this preparation may require using a detergent or cleaning agent to remove oil, dust and grease. Moreover, the adhesion between substrate and the adhesive can be optimized by using a primer or an activator, based on the application, the substrate and the adopted solution.

## TECHNOLOGY

### Surface Pretreatment

#### Solvent Based

Solvent-containing, polychloroprene- or polyurethane-based adhesives that will harden at room temperature for gluing a great variety of different materials such as wood- based materials, steel, aluminium, textiles, plastics like PVC, leather or foams. Solvent-based adhesives offer good wetting properties and can be easily applied with many different methods. The evaporation of the solvents helps to achieve fast initial strengths.

# Solvent Based Adhesives Technical Data

## Go-To-Products

Product	Key Properties	Open Time	Consumption	Packaging
Körplast SF	Universal PUR contact adhesive.	5-20 min	250 g/m <sup>2</sup>	60 g tube 600 g can 4 kg can
Körapren® FU 36	Contact adhesive, also for mineral grounds and metals.	15 min	250 g/m <sup>2</sup>	12 l can 500 ml can
Körapren® FU 2030	Polychloroprene rubber, solvent-based, suitable also for bonding on mineral grounds and metal, moisture resistant.	15 min	250-300 g/m <sup>2</sup>	650 g tin 4,5 kg can 9 kg can
Tec™ 238	Polychloroprene; in gel form; multipurpose; does not drip.	30-40 min	200-300 g/m <sup>2</sup>	500 ml bottle
Swift®col 9720	Multipurpose; low odour; transparent.	1 min	-	500 ml spray can
ULTRAFLEX™ 4326	Polyurethane solvent based adhesive; one or two components. Exhibits good heat, moisture and oil resistance as well as low temperature flexibility.	-	-	800 g tin 15 kg pail
Köratac VC 34	For fast and safe bonding of PVC-U (rigid) pieces (pipes, gutters, profiles, molded parts, pipes for cable ducts, sheets). Applied by brush. Resistant to yellowing. Transparent.	-	-	200 ml tube
Köratac VC 35	For fast and safe bonding of PVC-U (rigid) pieces (pipes, gutters, profiles, molded parts, pipes for cable ducts, sheets). Applied by brush. Resistant to yellowing. White colour.	-	-	200 ml tube
Köratac DF 842	For the bonding of plasticized PVC (tank sealing foils, pond liners, roof foils, etc.); PVC-dissolving. Transparent.	-	-	800 g bottle 4 kg can
Köratan UK 1000	One part solvent borne styrene rubber for the bonding of EPDM and butyl foils with concrete, masonry, wood, glass, aluminium, steel and bitumen or lap joint connections. Black colour.	-	-	600 ml sausage
MS 1856	Butadiene-Acrylonitrile contact adhesive; medium viscosity; once the bond is complete and thoroughly dry, they are resistant to moisture, dilute acids and alkalis, oils and petroleum derivatives and alcohols; permanently flexible even when exposed to low temperatures.	-	-	700 g tin 22 kg pail
Köralit F 143	Solvent-borne nitrile rubber with good resistance to humidity; very good oil and plasticizer resistance; high heat resistance; free of NEP; free of THF.	2-5 min	100-150 g/m <sup>2</sup>	10 kg pail
Swift®col 4020	Low odour; high coverage level; high performance; high initial bond strength.	3-35 min	-	19,5 kg can
Swift®col 2607-3	Polyurethane solvent based adhesive, Spraying out of pressure pots, Lamination of leather, textiles, PUR and PVC materials.	-	-	700 g tin 20 kg pail

# Lamination - Water Based Adhesives

APPLICATION

Lamination

TECHNOLOGY

Water Based

REQUIREMENTS

High surface tack

Low emissions and long open time

High initial strength

PRODUCT

Swift®tak 2050

Köracoll WB 20

Tec™540

COLOURS



CHARACTERISTICS

High surface tack, good heat and plasticizer resistance

Rapid setting, long tack, Emicode EC1, Giscode D1

High initial adhesion strength and final bond strength



# Water Based Adhesives Technical Data

## Go-To-Products

Product	Key Properties	Viscosity	Open Time	Density	Consumption	Packaging
Swift®tak 2050	High surface tack; good heat and plasticizer resistance.	20.000 mPas	3-5 min	1,01 g/cm <sup>3</sup>	80-150 g/m <sup>2</sup>	10 kg pail

Product	Key Properties	Viscosity	Open Time	Density	Solid Content	Packaging
Köracoll WB 20	Rapid setting; long tack; Emission EC1; Giscode D1.	14.000 mPas	10-20 min	1,00 g/cm <sup>3</sup>	78 %	14 kg pail

Product	Key Properties	Curing Time	Open Time	Consumption	Packaging
TEC™ 540	High initial adhesion strength and final bond strength.	48-72 hours	1 hour	250-350 g/m <sup>2</sup>	5 kg pail 20 kg pail
Helmitin 34026	EVA - Copolymer.	-	-	-	10 kg pail
Helmitin 38151	Polychloroprene latex.	-	-	-	10 kg pail
Helmitin 758/2	Natural latex.	-	-	-	9 kg pail
Köracoll 2027	Acrylic water borne.	-	-	-	10 kg pail
Köracoll 3050	Polyurethane dispersion.	-	-	-	10 kg pail

# Soft and Hard Lamination - Solvent Based Adhesives

APPLICATION

Soft and Hard Lamination

TECHNOLOGY

Solvent Based

REQUIREMENTS

Extremely stressed joints

Multipurpose

High initial strength

Fast initial grab, sprayable

PRODUCT

Köraplast SF

Körapren FU 36

Tec™ 238

Swift®col 9720

COLOUR



CHARACTERISTICS

Cold contact polyurethane adhesive

Polychloroprene rubber

Gel form, multipurpose, does not drip

Spray adhesive for quick initial adhesion



\* transparent